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## **Relieving Stress on the Army Options for Change**

Karl H. Lowe, Project Leader  
Waldo D. Freeman  
James H. Kurtz

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## **PREFACE**

This paper was prepared for the Director, Program Analysis and Evaluation (PA&E), in support of an IDA task entitled "Army Force-Mission Imbalance." Technical oversight was performed by Mr. Paul Rehmus of the Land Forces Division. The study objective was to identify and evaluate near- and long-term policy, mission, and force structure changes that could make a larger portion of Army's combat, combat support (CS), and combat service support (CSS) forces more suitable and available for a wider range of missions and/or better able to meet readiness requirements.

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## SUMMARY

This study grew out of a perception that imbalances exist in the Army as it is currently structured. One imbalance is between the kinds of forces the Army maintains to deter, fight, and win two major theater wars (MTWs) and the kinds of forces it needs for smaller-scale contingency (SSC) operations. The other is between Active Army structure as it now exists and the current level of authorized manning. The study addresses these issues as they impact Army combat forces, including non-divisional artillery, combat engineers, short-range air defense, and attack aviation, both Active component (AC) and Reserve component (RC)

The study objective is to identify and evaluate near-term policy, mission, and force structure changes that could make a larger portion of the Army more suitable and available for a wider range of missions and/or improve readiness. The study is intended to assist the Program Analysis and Evaluation (PA&E) Directorate during the summer program review in asking relevant questions about Army resource allocations. This phase of the study will also help identify criteria for judging the longer-term path for Army force structure.

We assume that guidance in the current Quadrennial Defense Review (QDR), as amplified by the current Defense Planning Guidance (DPG), will not change. It calls for Army AC strength of 480,000 and for retaining 10 divisions in the AC force structure. Accordingly, it addresses an Active Army of 30 maneuver brigades and two cavalry regiments. The QDR also specifies that the AC division mix will be six heavy and four light. The study assumes some flexibility in the definition of "AC division" and explores alternatives to the current mix of heavy and light divisions since a different mix of heavy, medium, and light divisions or brigades might be better suited to future requirements and resources. In addition to maneuver units, other combat forces such as non-divisional field artillery, air defense artillery, combat engineers, and aviation are examined as possible offsets.

Further, we consider ways to improve integration of the Reserve and Active components—by literally integrating RC elements into AC structures in some cases, by involving RC forces to a greater extent in the execution of day-to-day worldwide

missions, and by placing greater reliance on RC combat forces for a second MTW. As a baseline, we assume RC strength is reduced to 530,000 and the number of Army National Guard (ARNG) maneuver brigades is reduced from 42 to 30.

Our methodology first attempts to verify, quantify, and isolate the causes of the Army problems. The methodology also includes a mission/capability analysis to clarify those elements of the combat force that are the most useful across the widest portion of the mission spectrum. The insights gained from this analysis are linked to the urgency of need and frequency of use of these force elements and the complexity of the missions they perform to identify possible policy issues, mission implications, and AC-RC mix adjustments. To judge the merits of potential solutions, we develop at the outset 15 specific evaluation criteria that are important in two ways. They guide the development of options and they allow evaluations to be made from a common base. Options that flow from this approach are analyzed to identify arguments for and against taking each action, and cost and readiness implications of the opposing arguments are quantified.

We use five distinct but overlapping approaches to select options for detailed evaluation as follows:

- Explore solutions through policy changes, as distinct from force structure changes.
- Increase the availability of selected high demand units.
- Seek more aggressive use of the RC in peacetime engagement and SSC operations, as well as in MTWs.
- Focus on possible long-term corrections to the imbalance in strategic versus tactical mobility, assuming that the current mix of heavy and light forces still reflects a Cold War bias toward the heavy side.
- Reallocate manpower among the Active Army, ARNG, and U.S. Army Reserve (USAR).

Twelve specific options are developed and analyzed. The options address all the issues above, but do so to varying degrees. No one option is obviously superior to the others. The options offer different approaches to partial solutions to different problems. For purposes of analysis, the options are intentionally kept pure, without mixing, although several obvious combinations emerge. The 12 options are as follows:

- Temporarily reconfigure mechanized infantry and heavy and light non-infantry units to perform a light or motorized infantry role in smaller-scale contingencies.

- Create TDA “constabulary-type” units for established peacekeeping and similar missions.
- Increase Army Special Operations Forces by augmenting combat service support structure supporting Special Forces and by adding one Psychological Operations Battalion and one Civil Affairs Battalion.
- Allocate additional manpower to existing unit sets of high-demand equipment to alleviate PERSTEMPO stress on weapon systems.
- Task the ARNG to provide up to a brigade-sized unit for predictable smaller-scale contingency missions.
- Convert one or more Active component heavy divisions to hybrid units, with subordinate elements in both the Active and Reserve components.
- Convert an Active component heavy division to light division configuration.
- Convert an Active component heavy division to motorized division configuration.
- Convert an Active component light division to motorized division configuration.
- Convert the 2d Armored Cavalry Regiment (Light) to transitional motorized configuration.
- Reduce composition of Active divisions, pool assets at corps level, and convert spaces.
- Remove an Active component field artillery brigade, and/or aviation brigade, and/or engineer group from the corps-level force, or convert to Reserve component.

The study tends to confirm that imbalances exist in the Army as it is currently structured between the proportion of heavy forces the Army maintains to deter, fight, and win two MTWs and the kinds and proportion of lighter forces it needs for frequent SSC operations. The study also highlights the Army middleweight forces gap that raises strategic relevance issues and identifies ways to increase utilization of RC combat units. We found that actual Army over-structure may be as low as 5,000 spaces, a gap potentially correctable by options presented in this paper. The study also identifies a significant issue that previously has not been widely acknowledged concerning the requirement in our defense strategy to rapidly extract forces committed to SSC when they are needed for MTW.

The study determines that the new joint system for monitoring and managing readiness appears sound. The system forces Service staffs to inform senior leaders of

critical problem areas early so they can produce solutions. Moreover, the Global Military Force Policy is working to ease PERSTEMPO for Low Density High Demand Army units. Based on its own reporting system, the Army does not appear to be shouldering a disproportionate share of the deployment burden when compared with other Services. Very few units are experiencing an abnormally high OPTEMPO due to repeated SSC operations. For these few units, the problem is manageable and the Army has it under control. Therefore, OPTEMPO impact on readiness may not be as large a problem as the study task assumed.

We conclude that current imbalances are partially correctable within foreseeable resource constraints. The 12 options developed, particularly if implemented in logical combinations, could better structure Army combat forces for prompt and sustained operations on land throughout the spectrum of crisis.

## **RELIEVING STRESS ON THE ARMY: OPTIONS FOR CHANGE**

### **A. BACKGROUND**

This study grew out of a perception that imbalances exist in the Army as it is currently structured. One imbalance is between the kinds of forces the Army maintains to deter, fight, and win two major theater wars (MTWs) and the kinds of forces it needs for smaller-scale contingency (SSC) operations. The other is between Active Army structure as it now exists and the current level of authorized manning.

More specifically, the study is based on concerns that the Army—

- Can not fully man its structure according to current tables of organization and equipment (TOE).
- Has more units in its combined Active component (AC) and Reserve component (RC) structure than its contingency missions require.
- Is having difficulty recruiting to fill its vacancies.
- Has had to reduce major training activities each year for the past 2 years.
- Has been compelled to implement a de facto tiered readiness system in its Active component.
- Must frequently rotate portions of the force, including Special Forces, light infantry, and military police units, to overseas contingencies while the heavier maneuver units that constitute three-fifths of the Army's combat strength tend to be less heavily committed.
- Must stretch officer assets among competing requirements to include manning headquarters, special activities, schools, officer training establishments, and deployable units, causing serious shortages in some organizations.
- Is experiencing an installation maintenance backlog that grows annually, a problem aggravated by underused facilities at some posts.

The Secretary and Chief of Staff of the Army have stated that the Army's greatest challenge is to balance today's readiness and tomorrow's modernization requirements within the resources available. Between FY89 and FY98, the Army's buying power has



declined by 39 percent and procurement has decreased by 62 percent. The Army is reversing a decade of decline in procurement with the help of reinvested savings realized through efficiencies, base closures, and personnel reductions, adding \$20 billion to modernization between FY99 and FY03. But this still does not fully cover the Army's modernization shortfall.<sup>1</sup>

The Army's leaders contend that if the budgets of our armed forces were more closely linked with the strategy than with the traditional Cold War era approach that based each new budget on a percentage of the previous year's, much of the Army's requirements-to-resources imbalance could be eliminated. Others have openly called for the Army to receive a greater share of the Department of Defense (DoD) budget, and even for Defense to receive a greater share of the Gross Domestic Product.<sup>2</sup>

At the same time, however, the other Services are feeling stresses of their own, and may be casting their eyes on the Army's current share of the budget. Commenting on what he says is the Navy and Marine Corps' need for more budget authority, retired Admiral Wesley McDonald is reported to have said, "The Army ... is ripe for plucking."<sup>3</sup>

It therefore appears that the Army cannot count on gaining more resources at the expense of other Services. The question then becomes, Are there other ways to relieve the Army's stress?

## **B. PURPOSE AND SCOPE**

The objective of this study is to identify and evaluate near-term policy, mission, and force structure changes that could make a larger portion of the Army more suitable and available for a wider range of missions and/or improve readiness. The study is intended to assist the Program Analysis and Evaluation (PA&E) Directorate during the summer program review in asking relevant questions about Army resource allocations. This phase of the study will also help identify criteria for judging the longer-term path for Army force structure.

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<sup>1</sup> Robert M. Walker and Dennis J. Reimer, *United States Army Posture Statement FY99*, p. 35.

<sup>2</sup> Ibid., p. 10. See also Frederick R. Kroesen, "It's Time for a True Appraisal of the Base Force Requirement," *Army*, Vol. 48, No. 2 (February 1998), pp. 11–12, and Gordon R. Sullivan, "President's Message: Sullivan Calls for \$300 Billion for Defense," *AUSA News*, June 1998, p. 17.

<sup>3</sup> Quoted in Ernest Blazar, "Inside the Ring," *Washington Times*, 23 April 1998, p. 12.

This paper examines Army combat forces, including non-divisional artillery, combat engineers, short-range air defense, and attack aviation, both AC and RC. It includes a mission/capability analysis to clarify those elements of the combat force that are the most useful across the widest portion of the mission spectrum. The insights gained from this analysis are linked to the urgency of need and frequency of use of these force elements and the complexity of the missions they perform to identify possible policy issues, mission implications, and AC-RC mix adjustments. Options that flow from this approach are analyzed to identify arguments for and against taking each action, and cost and readiness implications of the opposing arguments are quantified.

PA&E will determine whether the study team is to follow up aspects of the completed work in greater detail, or to turn its attention to the second phase, a similar examination of combat support (CS) and combat service support (CSS) forces. Examinations of Army operational headquarters and the institutional Army are envisioned in later phases, as are development of longer-term structure options for consideration during the next Quadrennial Defense Review (QDR).

### **C. STUDY PARAMETERS**

We assume that guidance in the current QDR,<sup>4</sup> as amplified by the current Defense Planning Guidance (DPG), will not change. It calls for Army AC strength of 480,000 and for retaining 10 divisions in the AC force structure. Accordingly, we address an Active Army of 30 maneuver brigades and two cavalry regiments. The QDR also specifies that the AC division mix will be six heavy and four light. The study assumes some flexibility in the definition of "AC division" and explores alternatives to the current mix of heavy and light divisions since a different mix of heavy, medium, and light divisions or brigades might be better suited to future requirements and resources. In addition to maneuver units, other combat forces such as non-divisional field artillery, air defense artillery, combat engineers, and aviation are examined as possible offsets.

Further, we consider ways to improve integration of the Reserve and Active components—by literally integrating RC elements into AC structures in some cases, by involving RC forces to a greater extent in the execution of day-to-day worldwide missions, and by placing greater reliance on RC combat forces for a second MTW. RC

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<sup>4</sup> William S. Cohen, *Report of the Quadrennial Defense Review*, Department of Defense, May 1997, p. 29.

strength reductions to 530,000 and the reduction of Army National Guard (ARNG) maneuver brigades from 42 to 30 are assumed as the baseline.

Also assumed are a constant Army budget, delivery of the mobility forces programmed in the Future Years Defense Program (FYDP), completion of Army heavy brigade pre-positioning, evolution of an expeditionary Army doctrine, and acceptance by both the AC and RC of an increased role for the RC in SSC operations.

#### **D. STUDY METHODOLOGY**

The perceived incongruence between the Army's current structure and its ability to meet current and projected mission requirements is attributable to four contributing factors: (1) the dramatically altered strategic environment; (2) a legacy of Cold War institutional overhead, facilities, and RC structure; (3) the reduction of AC combat structure by 44 percent<sup>5</sup>; and (4) a residual AC force structure that is not well balanced against currently projected missions. The result is assumed for purposes of the study to be manifested internally in recruiting, manning, readiness, and personnel tempo (PERSTEMPO) problems, and externally in concerns over the strategic immobility and non-expeditionary structure of the Army's heavy divisions.

Accordingly, we first attempted to verify, quantify, and isolate the specific aspects of the assumed internal problems. This was done through literature search and direct coordination with experts on the Army Staff and the Joint Staff. Review of Army deployment data as well as that of other Services helped focus analysis on the facts regarding both units—by type (Standard Requirements Code) and by individual unit—and Military Occupational Specialties (MOSSs) in both the AC and RC. The issue of the frequency, duration, and impact of operational deployments is complex, insufficiently measured or understood, frequently confused by lack of common definitions within as well as between Services, and often based on misleading anecdotal information.

We developed a detailed listing of the full range of missions that Army operational forces must perform, based on similar lists<sup>6</sup> found elsewhere. Similarly, we developed a listing of the unit types within divisions, special operations forces (SOF), and selected non-divisional combat forces. Specialized capabilities could then be compared with the mission range and judgments made about which type units (for example, heavy,

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<sup>5</sup> From 18 divisions in 1989 to 10 in 1996.

<sup>6</sup> For example, see *Army Vision 2010*, p. 5, and Philip A. Odeen et al., *Transforming Defense*, pp. 25–42.

medium, or light infantry) are best suited to perform each mission. All units have multiple capabilities but some are more fungible than others. All units are organized, trained, and equipped to optimize their performance of specific functions or tasks, thus giving them capabilities as good as, better than, or not as good as other type units, depending on the mission. Identifying the missions that different type units are “best at” performing greatly facilitated disciplined analytic comparisons and served as a partial filter to the inherent biases of the authors.

After identifying the unit types and their suitability for various missions, we then linked frequency of deployment of units, especially those that are highly stressed, with the urgency of their deployments and the complexity of the tasks they are organized, trained, and equipped to perform. This helps distinguish between units that must be retained largely in the AC and those that could be maintained to some degree—or even entirely—in the RC, even if they were in high demand. Units that must deploy on short notice need to be available in the AC in sufficient numbers to satisfy short-notice requirements in the absence of Presidential Selected Reserve Call-up (PSRC) authority. Units for which delayed arrival is acceptable, as well as those for which a planned, deliberate deployment is an option, can be concentrated in higher proportions in the RC. Units, both AC and RC, that deploy under such conditions are candidates for temporary reconfiguration to meet the requirements of peacetime engagement and non-traditional SSC operations. For purposes of this analysis, urgency and complexity judgments were made subjectively based on the experience of the IDA study team. In a few cases, these judgments differed slightly from the current distribution of Army capabilities among the AC and RC.

Placed in matrix format (see section F.1, figure 1, page 27), this mission/capability analysis helped to clarify the types of units that appear to be the most useful across the widest portion of the mission spectrum. The more fungible units have capabilities that should offer the highest payoff in the future. Enhancing these capabilities could mitigate some of the Army's internal problems associated with peacetime deployment requirements by increasing the pool of units available for the most frequent taskings. Moreover, identifying capabilities with the greatest utility across the broadest range of missions would address the external strategic relevance issue. Then, by linking these insights with both frequency and urgency of use of these preferred capabilities, as well as with mission complexity, the range of possible innovative solutions is broadened to include many involving the RC.

To judge the merits of potential solutions, we developed at the outset specific evaluation criteria<sup>7</sup> that were important in two ways: They guided the development of options and they allowed evaluations to be made from a common base. The criteria were as follows:

- *Major Theater War.* Does the option maintain or improve the Army's capability for its ultimate mission?
- *Mission Flexibility/Fungibility.* Does the option make more units useful across a broader mission range or enable scarce, specialized capabilities to be used more flexibly?
- *Tailorability, Modularity.* Does the option facilitate the creation of task forces while making such packaging less disruptive to the remainder of the force?
- *Mobility, Strategic and Tactical.* Does the option increase Army mobility in both categories?
- *Capability vs. Asymmetrical Threats.* Does the option address current weaknesses?
- *Command and Control.* Does the option streamline and/or flatten tactical headquarters?
- *Joint/Combined Operations.* Does the option facilitate the integration of Army forces into the land component command of joint and combined forces?
- *Readiness.* Does the option improve readiness?
- *PERSTEMPO.* Does the option reduce PERSTEMPO or more broadly distribute its impact?
- *Cost.* Does the option entail additional costs or produce savings?
- *AC Manpower.* Does the option allocate AC manpower to the units offering the widest range of mission applicability?
- *Capital Equipment.* Does the option make effective and efficient use of existing equipment, and minimize new procurement?
- *Utilization of RC.* Does the option improve RC integration?
- *Timeframe.* Is the option feasible for implementation in the near- to mid-term?
- *Complexity.* Is the option simple to implement?

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<sup>7</sup> Drawn in part from the QDR, NDP, *Joint Vision 2010*, and *Army Vision 2010*.

These evaluation criteria are not rank-ordered; however, the first two—maintaining MTW capability and increasing the utility of a larger proportion of the force in meeting new mission requirements—were weighted more heavily as options were developed.

Using insights derived from the mission/capabilities matrix and the evaluation criteria, we outlined broad approaches to potential solutions. Each approach was developed into one or more specific options for further examination and analysis. The approaches include policy, mission, and force structure options that address portions of the problem set.

From the beginning it was clear that no single approach could address the entire problem set, and that no single option was likely to satisfy all 15 of the evaluation criteria. As the options were developed and evaluated, it soon became evident that they could be mixed and matched to produce results greater than if they were applied individually. However, to facilitate exploration of specific alternatives as part of the program review, the options were purposely kept “clean” and evaluated one at a time against the 15 criteria.

## **E. DEFINING THE PROBLEM**

### **1. Appropriate Army Force Structure for Major Theater Wars**

It has been said that for the U.S. Army, the 21st century really began in 1989.<sup>8</sup> At the start of that year, the Army’s 18 Active and 10 ARNG divisions were postured to deter and poised to fight a global war against the Soviet Union. By year’s end, the Berlin Wall had been breached. Less than a year later, the “Inter-German Border” that had for so long been the focus of U.S. forward defense strategy disappeared as East and West Germany reunited. A few months later, the Warsaw Pact dissolved, followed by the Soviet Union itself. The Cold War was over, and the realities that had for decades driven the Army’s force planning no longer existed.

As the strategic landscape has changed, the National Security Strategy and National Military Strategy have evolved accordingly. Since 1989, U.S. Presidents have enunciated three distinct national security strategies, and successive Chairmen of the Joint Chiefs of Staff have issued three national military strategy documents.

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<sup>8</sup> Dennis J. Reimer, “Preparing Now to Meet 21st-Century Challenges,” *Army*, October 1997, p. 19.

President George Bush announced a new defense strategy and military structure in a speech at the Aspen Institute in Colorado on 2 August 1990—ironically, the day Iraq invaded Kuwait. A new National Security Strategy appeared a year later. The strategy described “A New World Order” and outlined plans to reduce U.S. military forces to a minimally acceptable level—the “Base Force”—by the mid-1990s.<sup>9</sup> General Colin Powell’s corresponding National Military Strategy provided specifics, calling for the Army to reduce by 1995 to 12 Active divisions, 6 ARNG divisions, and two cadre divisions.<sup>10</sup>

Soon after coming into office, President Clinton directed his new Defense team, headed by former Congressman Les Aspin, to undertake a comprehensive review of U.S. military plans and programs. The Bottom-Up Review (BUR) called for the nation to field military forces sufficient to fight and win two major regional conflicts (MRCs) that occur nearly simultaneously. The BUR set 1999 Army force structure at 10 Active divisions and an ARNG combat force of about 37 brigades, including 15 “enhanced Separate Brigades” (eSBs)<sup>11</sup> that would be organized and resourced such that they could begin deploying in 90 days to reinforce Active combat units in a crisis. The BUR found that the remaining ARNG combat forces, maintained at lower readiness, were needed to provide the basis for wartime rotation, share the burden of conducting peace operations, serve as a deterrent hedge against future adversarial regimes, and support civil authorities in domestic crises.<sup>12</sup> President Clinton’s first National Security Strategy, published in July 1994, reiterated the need for military forces able to credibly deter and defeat aggression by projecting and sustaining U.S. power in more than one region if necessary. The “Strategy of Engagement and Enlargement” also called on military forces to provide a credible overseas presence, counter weapons of mass destruction, contribute to multilateral peace operations, and support counterterrorism efforts and other missions such as counterterrorism and punitive attacks, noncombatant evacuation, counternarcotics operations, nation assistance, and humanitarian and disaster relief operations.<sup>13</sup>

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<sup>9</sup> George Bush, *National Security Strategy of the United States, August 1991*, p. 31.

<sup>10</sup> Colin Powell, *National Military Strategy of the United States, January 1992*, p. 19.

<sup>11</sup> Originally called “Enhanced Readiness Brigades” in the BUR.

<sup>12</sup> Les Aspin, *Report of the Bottom-Up Review*, October 1993, pp. 19, 28–31, 93–94.

<sup>13</sup> William J. Clinton, *A National Security Strategy of Engagement and Enlargement, July 1994*, pp. 6–7. This strategy was slightly revised and reissued in February 1995, and again in February 1996.

In May 1994, Congress established the Commission on Roles and Missions of the Armed Forces (CORM) to review the types of military operations required in the post-Cold War era, define broad mission areas and key support requirements, and evaluate possible changes to the existing allocation of military roles, missions, and functions.<sup>14</sup> In its May 1995 report, the CORM noted that peace operations were a vital part of the National Security Strategy, and that while the size of the force was adequate to meet the then-current level of peace operations, "additional forces uniquely applicable to such operations could be needed if these missions were to increase in frequency or intensity." The CORM said the challenge was "to integrate the military capabilities required to perform peace operations into the DoD mission set, assign proper priorities, and develop training and other support activities to avoid degrading the readiness of U.S. forces for major combat operations."<sup>15</sup>

The CORM's review of planned Army structure found that the 15 eSBs called for by the BUR could meet deployment schedules associated with the two-MRC scenario if they were provided sufficient resources. The CORM also noted that eight ARNG combat divisions were not included in any DoD planning scenarios for two MRCs, and found eight divisions too large a force for the secondary missions assigned by the BUR. Noting the Army's estimated shortfall of 60,000 CS and CSS troops to support Army combat forces and the other Services in two regional conflicts, the CORM recommended that the Secretary of Defense verify the extent of the shortfall, direct the Army to restructure its combat divisions to provide the additional support forces needed, and eliminate any remaining combat structure excess to requirements.<sup>16</sup>

Acting in part on a separate recommendation of the CORM, Congress found that the pace of global change necessitated a new, comprehensive assessment of the defense strategy of the United States and the force structure of the Armed Forces required to meet potential threats to the United States in the 21st century. Congress directed the Secretary of Defense to complete in 1997 a Quadrennial Defense Review of the defense strategy, force structure, force modernization plans, infrastructure, budget plans, and other

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<sup>14</sup> *National Defense Authorization Act for Fiscal Year 1994*, Subtitle E.

<sup>15</sup> John P. White et al., *Directions for Defense*, pp. 2-17 to 2-18.

<sup>16</sup> *Ibid.*, p. 2-24. While the CORM recommended converting excess combat structure to fill the CS/CSS shortfall, it did not specify whether the structure to be converted should come from the Active component or the Army National Guard. It did recommend that the remaining excess combat structure be eliminated from the Active or Reserve components.



elements of the defense program and policies with a view toward establishing a revised defense program through the year 2005.<sup>17</sup>

The QDR found it imperative that the United States now and for the foreseeable future be able to deter and defeat large-scale, cross-border aggression in two different theaters in overlapping time frames. The QDR thus determined a requirement for the Army to maintain four Active corps, 10 Active divisions—including 6 heavy and 4 light divisions—and 2 active armored cavalry regiments. To improve overall support to these combat organizations, the QDR also mandated a reduction of Active Army end strength, to be carried out by inactivation, consolidation, and realignment of headquarters and support facilities.

The QDR also revisited the need for Army combat forces beyond 10 Active divisions. It found that the program of enhancements to ARNG eSBs was almost complete. It envisioned a continuing need for these brigades as an important hedge against adverse circumstances, such as the use of weapons of mass destruction, in major theater wars.

The QDR also reviewed the missions and size of ARNG combat structure beyond the 15 eSBs. It confirmed that existing plans do not call for the eight ARNG combat divisions to participate in MTWs and that they are assigned instead to missions that include easing Army PERSTEMPO in peacetime operations, providing rotation forces for extended contingencies, responding to domestic emergencies, and hedging against the emergence of a more threatening international environment. The QDR considered the following additional missions for ARNG divisions:

- *Provide CS/CSS.* Following the CORM's recommendation to confirm Army analysis of a shortfall in support requirements for two MTWs and convert excess combat structure to fill the gap, the Secretary of the Army determined in 1996 that 12 ARNG combat brigades would be converted to CS/CSS units. Because this conversion would not have been completed until FY 2013, the QDR accelerated the conversion program by using some of the savings from proposed reductions in Guard personnel.
- *Protect rear-area security in theater.* Although this mission will most likely be filled by eSBs, the QDR found it could require ARNG divisional units if the eSBs are otherwise engaged.
- *Backfill in Europe for ongoing smaller-scale contingency operations.*

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<sup>17</sup> *National Defense Authorization Act for Fiscal Year 1996*, Subtitle B.

- *Support the rapid deployment of active units and the mobilization of eSBs.*
- *Perform state missions.*

Taking these missions into consideration, the QDR determined that the strategy could be supported by a somewhat smaller Army Reserve and National Guard, and that Army RC end strength could be reduced by 45,000 personnel by 2005.

Thus, the QDR confirmed the Army's programmed AC combat structure of 6 heavy and 4 light divisions and 2 cavalry regiments, and set the Army on a path to reduce AC end strength from 495,000 to 480,000 by 2005. It confirmed the ARNG's requirement to maintain 15 eSBs while accelerating the conversion of up to 12 of the 42 ARNG maneuver brigades to CS and CSS, and reducing RC end strength from 575,000 to 530,000 by 2005.<sup>18</sup>

The Army combat force structure used to conduct Total Army Analysis 2005 (TAA-05) was used as the baseline for options discussed in this paper. It is depicted in appendix A.

## **2. Meeting Army MTW Requirements Plus SSCs and Peacetime Missions**

The strategy and structure determined by the QDR addressed more than MTWs. It also addressed, in far greater depth than previous defense strategies had, SSC operations. The QDR described these operations as encompassing the full range of joint military operations beyond peacetime engagement activities but short of major theater warfare. They include show-of-force operations, interventions, limited strikes, noncombatant evacuation operations, no-fly zone enforcement, peace enforcement, maritime sanctions enforcement, counterterrorism operations, peacekeeping, humanitarian assistance, and disaster relief.<sup>19</sup>

The QDR found that the forces sized to fight and win two MTWs must be prepared to conduct multiple concurrent SSC operations worldwide. Importantly, the forces must also be able to withdraw from smaller-scale contingencies, reconstitute, and then deploy to a major theater war in accordance with required timelines. The ability to transition between peacetime operations and "high end" combat operations therefore

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<sup>18</sup> William S. Cohen, *Report of the Quadrennial Defense Review*, May 1997, pp. vii and 29–33.

<sup>19</sup> *Ibid.*, p. 11. See also William S. Cohen, *Annual Report to the President and the Congress 1998*, p. 83.

remains a fundamental requirement for virtually every unit in the Army. Consequently, Army forces must be organized, trained, equipped, and managed with multiple missions in mind.<sup>20</sup>

The QDR specifically addressed the transition to war from substantial levels of peacetime engagement overseas as well as multiple concurrent SSC operations. In the event of one theater war, the United States would become extremely selective in making any additional commitments to engagement activities or SSC operations. Moreover, the strategy states, we would begin disengaging from those activities and operations judged to be peripheral to vital U.S. interests, focusing our resources and forces to deter the possible outbreak of a war in another theater. If two MTWs were to occur, the strategy says U.S. forces would be withdrawn from peacetime engagement and SSC operations as quickly as possible to be readied for war.<sup>21</sup>

On one hand, the QDR says forces must withdraw, reconstitute, and deploy to a major theater war *in accordance with required time lines*; on the other, it says they will be withdrawn and readied for war *as quickly as possible*. The strategy does not make clear what we might do if “as soon as possible” is *not* “in accordance with required timelines.” Withdrawal, reconstitution, and strategic redeployment are not actions that U.S. military forces routinely practice, and there is no way to know how long it would really take.

A recent report to Congress on military readiness noted that the ability to quickly disengage and redeploy from an ongoing contingency operation is “an open question.” Diversion of strategic lift assets needed for withdrawal from an ongoing operation can impact arrival of forces and sustainment stocks to support an MTW. In addition, indigenous rail, highway, and seaport conditions can limit the ability to withdraw rapidly. Extraction and redirection of combat and combat support units from ongoing contingencies is difficult, complex, and time-consuming, requiring time to extract, time to reconstitute, time to retrain to acceptable readiness levels, and time to redeploy to another theater to deter or fight a war. National and international policies as well as the potential for a non-permissive disengagement environment could complicate a rapid withdrawal.<sup>22</sup>

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<sup>20</sup> Ibid.

<sup>21</sup> Ibid., p. 13.

<sup>22</sup> DoD, *Quarterly Readiness Report to the Congress, October-December 1997*, p. 17

The QDR nonetheless found that SSC operations will likely pose the most frequent challenge for U.S. forces through 2015 and may require significant commitments of forces, both Active and Reserve. The pace of military activity in recent years bears out this finding.

### 3. Quantifying Demands on the Army

#### a. Operating Tempo (OPTEMPO)

OPTEMPO is defined by the Army as “*the pace of an operation or operations . . . a single activity or a series of operations.*”<sup>23</sup> Army leaders say that since the Cold War’s end, the Army has been doing “the Nation’s heavy lifting.”<sup>24</sup> It has provided more than 60 percent of committed forces in 28 of the 32 military operations conducted by the U.S. Armed Forces since 1989. As the Army has shrunk—from 1989 to 1997 it reduced its ranks by 630,000 soldiers and civilians, cutting Active divisions from 18 to 10 and ARNG divisions from 10 to 8—its commitments have increased.

The Army says that in the 40 years from 1950 to the collapse of the Soviet Union it conducted 10 notable deployments, while in the first 6 years thereafter it conducted 25.<sup>25</sup> Which deployments have been “notable” is arguable. The Army’s list omitted, for example, the reinforcement of NATO during the Korean War and again during the Berlin Crisis of 1961; the deployment of four Army divisions to ports on the Gulf and Atlantic coasts and airfields in Florida during the Cuban Missile Crisis; and Desert One, the attempt to rescue hostages in Iran. Still, it is clear that the frequency of rapid deployments to cope with unexpected contingencies has risen since the end of the Cold War.

During FY97, an average of more than 31,000 Active, Guard, and Reserve soldiers were deployed to more than 70 countries on any given day, with the average deployment lasting 125 days. At one point, the Army had more than 49,000 soldiers deployed. At another, soldiers were deployed to 100 different countries.<sup>26</sup> In military-to-military exchanges conducted under the rubric of peacetime engagement operations, the

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<sup>23</sup> Field Manual 101-5, *Operational Terms and Graphics*, p. 1-116.

<sup>24</sup> See, for example, *Army Posture Statement FY99*, pp. 1-3, and Reimer, “Preparing to Meet 21st Century Challenges.”

<sup>25</sup> *Army Vision 2010*, p. 5.

<sup>26</sup> These figures do not include soldiers who are permanently stationed overseas—some accompanied by their families but others on unaccompanied “short tours.”

Army provided 173 temporary and permanent teams in 40 countries across all geographic combatant commands. Active, Guard, and Reserve soldiers supported 28 disaster relief operations affecting 25 states, the District of Columbia, and Puerto Rico. The Active Army and Army Reserve provided 6,900 soldiers for operations to reduce the flow of illegal drugs across our borders, and the Army National Guard devoted 572,942 man-days of support for counterdrug operations.<sup>27</sup>

#### **b. PERSTEMPO**

The increased pace of deployments adds to soldier, leader, and family stress. The measure of this stress is PERSTEMPO, which the Army views as a combination of two kinds of “days away”—deployment tempo and skill tempo.<sup>28</sup>

Deployment tempo (DEPTEMPO) is the amount of time that *units* spend deployed away from home station. The Army’s database for recording and monitoring DEPTEMPO was established in June 1997. Units record in their monthly Unit Status Reports the average number of days within the reporting month that unit personnel have spent “away from their bunks.” These reports are rolled up at Headquarters, Department of the Army, to arrive at the average number of days unit personnel have spent or are projected to spend away from home station in a 1-year period.

Based on thresholds established by the Chief of Staff of the Army (CSA), units having or projecting a DEPTEMPO greater than 120 days in a 12-month period are evaluated to determine causes, assess the impact to the force, and determine possible near-term means of alleviating tempo.<sup>29</sup> Further, any deployment causing a unit to exceed 180 days per year requires CSA approval.<sup>30</sup> As part of the Joint Monthly Readiness Review (JMRR) process, the Army reports the number of AC units whose DEPTEMPO exceeds these established thresholds.

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<sup>27</sup> *Army Posture Statement*, pp. 10, 20, 21.

<sup>28</sup> Draft response to Questions for the Record, National Security Subcommittee of the House Appropriations Committee. Hearing Date: 18 March 1998. Hearing Subject: Readiness. Witness: General Crouch, Vice Chief of Staff of the Army.

<sup>29</sup> *Quarterly Readiness Report to the Congress, October-December 1997*, pp. 10–12.

<sup>30</sup> Draft response to Questions for the Record, National Security Subcommittee of the House Appropriations Committee. Hearing Date: 18 March 1998. Hearing Subject: Readiness. Witness: General Crouch, Vice Chief of Staff of the Army.

Of 1,291 "AA" level units that reported DEPTempo in June through September 1997, 43 had more than 120 days and 15 more than 180 days. Of the 15 units that exceeded 180 days DEPTempo per year, 2 were involved in joint exercises and the rest were involved in contingency operations in Bosnia.<sup>31</sup> By the February JMRR, these figures had been reduced to 18 AC units with more than 120 days and 6 with more than 180 days, representing just 1.4 percent and 0.46 percent, respectively, of the 1,291 reporting units. The 6 units with more than 180 days were a Transportation Corps detachment,<sup>32</sup> an aviation battalion, an engineer battalion, a forward support battalion, a heavy division military police company, and a heavy brigade headquarters.<sup>33</sup>

SKILLtempo is the amount of time spent on "out of station operational deployments" by MOS and skill level. Skill tempo reports are pulled from the Standard Installation/Division Personnel System (SIDPERS), which requires an entry be made at unit level every time a soldier is away from home station on a set of orders.<sup>34</sup> While the data collected can produce a list of MOSs with the highest SKILLtempo, there does not yet appear to be a routine process for bringing DEPTempo and SKILLtempo measurements together for analysis. Additional study is required before it can be determined how the two sets of data correlate, and what problems or trends they might identify when combined.

Left unclear by DEPTempo and SKILLtempo reporting is the impact of repetitive overseas deployments over a longer period, corresponding to a soldier's term of enlistment. The "days away" included in reporting are days away from home station, not days away from family. They do not include involuntary unaccompanied assignments to "short tour" areas, most notably Korea. Over a standard 2-, 3-, or 4-year enlistment, a soldier may serve in two or even three different units, each of which may be well under the threshold of 180 days in a year. If one of the units that soldier is assigned to happens

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<sup>31</sup> *Quarterly Readiness Report to the Congress, October-December 1997*, pp. 12-13.

<sup>32</sup> While the unit is listed and briefed as a TC Detachment, the study team was told it is in actuality a ship owned and operated by the Army, called an LSV (Landing Ship, Vehicle).

<sup>33</sup> Interview with Joint Staff and Army Staff action officers; *Quarterly Readiness Report to the Congress, January-March 1998*, pp. 7-8.

<sup>34</sup> Draft response to Questions for the Record, National Security Subcommittee of the House Appropriations Committee. Hearing Date: 18 March 1998. Hearing Subject: Readiness. Witness: General Crouch, Vice Chief of Staff of the Army.

to be in Korea, the days spent there do not “count” even though the impact of separation on the soldier and his family is just as real as during a temporary deployment to Bosnia or the Sinai.

### **c. Global Military Force Policy**

The GMFP was promulgated in July 1996<sup>35</sup> because combatant commanders in chief (CINCs) responsible for ongoing contingency missions generate high demand for certain limited assets with unique mission capabilities. Left unchecked, high demand would affect the readiness of these assets by causing lost training, deferred maintenance, and degraded quality of life. The GMFP was established to manage the OPTEMPO levels of these assets.

### **d. Low Density/High Demand Assets**

LDHD assets are defined by the GMFP as “force elements consisting of major platforms, weapons systems, units, and/or personnel that possess unique mission capabilities and are in continual high demand to support worldwide joint military operations.”<sup>36</sup>

The Military Services and U.S. Special Operations Command (USSOCOM) designate which of their assets are LDHD, establish guidelines, and manage the OPTEMPO of assets they provide. To establish a common reference, the policy established three levels of OPTEMPO, defined as follows:

- *Steady-State OPTEMPO*. The maximum level of peacetime operations that can reasonably be sustained indefinitely without adversely affecting normal training, exercise support, or scheduled maintenance cycles and without violating Service PERSTEMPO goals.
- *Surge OPTEMPO*. The additional level of operations during crisis or contingency response that can be sustained for a specified period with some decline in readiness and that may exceed Service PERSTEMPO goals. This level may adversely affect training, exercise support, and/or maintenance, requiring a follow-on recovery period at or below steady-state OPTEMPO.

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<sup>35</sup> CJCS message, 231301Z Jul 76, subject: Global Military Force Policy (U)

<sup>36</sup> LDHD assets are normally deployed situationally, in response to a contingency, rather than rotationally in accordance with a schedule. Naval assets such as carrier battle groups that are in high demand to provide overseas presence are managed under a separate Global Naval Force Presence Policy (GNFPP).

- *Total Capability.* The maximum capability when all available assets are committed. This level of operations obtains only in time of war. There is an immediate and significant OPTEMPO and PERSTEMPO impact during the time this level of operations is sustained.

Authority to exceed the Steady-State OPTEMPO level established for a particular LDHD asset by the owning Service or USSOCOM is retained by the Secretary of Defense. Eight Army assets are among the 31 currently designated as LDHD. Seven are SOF assets managed by USSOCOM; the eighth is the Army's Patriot missile system. As of 16 April 1998, all eight were at or below Steady-State OPTEMPO.

#### **e. High Demand Assets**

The Defense Planning Guidance (DPG) directed the Chairman of the Joint Chiefs of Staff and the Services to establish metrics for monitoring and identifying those assets in high demand for peacetime engagement or contingency response—in addition to those already managed as LDHD under the GMFP. The Army's Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) proposed to the Joint Staff that Army high demand assets (HDAs) be defined as "those units employed or deployed intensively and for extended periods of time to meet peacetime engagement and crisis response (non-MTW) requirements." The Army proposed that HDA units be identified by Standard Requirements Code (SRC) and echelon, and that demand be gauged by the following metrics:

- Percentage of the available, deployable force (excludes units not available for peacetime engagement or contingency response missions, including most TDA [tables of distribution and allowances] units, forward-deployed units, experimental or training support units, units that are converting, reorganizing, activating, or inactivating, and units excess to warfighting requirements)
- Days deployed or employed "away from bunks" ("days away") on training, exercises, and operational deployments

The Army further proposed that a particular unit type be categorized as "high demand" whenever a third or more of the available, deployable force (by SRC-series and echelon) has or is projected to have more than 120 days away in a time period that varies by component. The HDA threshold for AC units is 120 days away in any 12-month



period. For RC units, the HDA threshold is 120 days away in 6 years (not including weekend drill and annual training periods, which are considered “home station” time).<sup>37</sup>

Army ODCSOPS reported in December 1997 that assets meeting the above criteria for classification as HDA included 13 SRCs—all of them RC. The Army noted that the capabilities on the list reside predominately in the Army Reserve or National Guard, and that the requirements of operations in Bosnia accounted for their meeting the HDA criteria. The Army further noted that AC support of these operations usually consists of assets that are readily available (forward stationed or deployed) and in sufficient density (Army-wide) to stay below the threshold for “high demand.”<sup>38</sup>

As part of the JMRR process, the Army reports the number of specific units exceeding 180 days DEPTempo, along with the population of each unit’s type. The most recent data indicates, for example, that one of the six AC heavy division military police companies had DEPTempo greater than 180 days. Since one out of six is less than a third of the available deployable force, heavy division military police companies do not meet the criteria for categorization as a High Demand Asset, even though reported under JMRR and intensively managed.

However, as noted previously, DEPTempo reporting includes only days away from home station and does not include time spent overseas in short tour areas such as Korea, unaccompanied by family members. If the military police company assigned to the 2d Infantry Division in Korea were counted as deployed, rather than permanently stationed overseas, the count would come to two of six, and heavy division military police companies would be categorized as an HDA and possibly managed under the GMFP.

The JMRR process reviews the DEPTempo of AC units only; the December 1997 review that identified 13 SRCs in the RC meeting the HDA criteria appears to have been a one-time effort. There is for RC units, however, a built-in safeguard against over-commitment. Army policy is that a given unit may be activated under PSRC authority only one time per contingency. An RC unit that exceeds the threshold of 180 days away in a 6-year period because of a deployment under PSRC authority will not be called up again.

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<sup>37</sup> Army Planner Memorandum No. 741-97, “Service/SOCOM Definitions and Metrics to Determine High Demand Assets,” 24 November 1997.

<sup>38</sup> Army Planner Memorandum No. 794-97, “Army AC/RC High Demand Assets,” 17 December 1997.

#### **f. Initiatives to Ease PERSTEMPO Strains**

The Army reports it is actively managing the effects of PERSTEMPO by working with the Office of the Secretary of Defense (OSD) to manage force requirements in joint operations and exercises through force management actions. One such action was a 15 percent reduction from the FY96 level of man-days required for joint exercises. Another was reducing brigade task force rotations to the National Training Center from 12 to 10 for FY98—9 for AC brigades and 1 for an eSB.<sup>39</sup>

In February 1998, the Army Deputy Chief of Staff for Personnel announced the implementation of the CSA's Deployment Stabilization Policy. A key feature of the new policy is stabilization from repetitive deployments, enabling soldiers to enjoy a period of time to become reacquainted with their families and provide them time to readjust to their living and working environment. Soldiers placed on Temporary Tour of Duty/Temporary Change of Station (TDY/TCS) for at least 30 consecutive days to participate in specified operations will, to the extent feasible, be provided a period of stabilization equal to one month of stabilization for each month of TDY/TCS. During the period of stabilization, soldiers are ineligible to be involuntarily placed on TDY/TCS away from their home station for any of the specified operations. The Army concedes that stabilization of some critical low-density, high-demand MOSs will not be possible; therefore, the first general officer in the chain of command may terminate the period of stabilization. Stabilization will not keep eligible soldiers from being reassigned in a Permanent Change of Station (PCS) status. Reassignment rules are clear and have been in place for some time. Unused periods of stabilization authorized prior to the soldier's departure from one unit will be carried over to the gaining commander.<sup>40</sup> Thus far, there is no indication of how well this feature of the new policy works in practice.

This new policy does not address involuntary unaccompanied PCS reassignments to short tour areas such as Korea. Soldiers reporting to unit in Texas or Germany after a 12-month tour in Korea are eligible to deploy with their new unit immediately, without the stabilization time granted to other soldiers after temporary deployments half the length of an unaccompanied tour in Korea.

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<sup>39</sup> *Army Posture Statement FY99*, p. 36.

<sup>40</sup> Draft response to Questions for the Record, National Security Subcommittee of the House Appropriations Committee. Hearing Date: 18 March 1998. Hearing Subject: Readiness. Witness: General Crouch, Vice Chief of Staff of the Army.

#### 4. Current Measures of Force Readiness

Keeping combat forces trained and ready to fight and win major theater wars while simultaneously conducting peacetime engagement and SSC operations puts a strain on the Army. Higher OPTEMPO means more miles are driven and more wear and tear is placed on vehicles and equipment. More fuel is consumed and more repair parts are required. Forces engaged in SSC operations can and do find themselves unable to train in the “high end” tasks associated with MTW. Even units that are not engaged in peacetime missions may find their training opportunities curtailed as the Operations and Maintenance (O&M) funds that pay for OPTEMPO get used up by real-world contingencies. Some relief may come in the form of supplemental appropriations, but a rotation to the National Training Center or Joint Readiness Training Center cancelled in April may not be recoverable in September. Thus, real world contingencies affect readiness in two ways—by diverting parts of the force from their focus on wartime tasks and by diverting resources from other parts of the force.

As noted during the QDR, each Service has its own approach to assuring force readiness. The Army manages resources to achieve the highest state of readiness in its “first-to-fight” units while maintaining the ability to deploy later-arriving units within prescribed timelines. This approach provides varying amounts of resources to units according to the likelihood that the unit will be required to respond to a military conflict and the time in which it will be required to respond. Later deploying units receive fewer resources—people, equipment, and dollars—because their response time would allow them to get ready before they are required in theater.<sup>41</sup>

The central component of the DoD readiness assessment process is the readiness system established by the Chairman of the Joint Chiefs of Staff with the JMRR. The review incorporates inputs from the Services, CINCs, and combat support agencies. To provide civilian oversight, significant issues raised through the JMRR process are used to make a monthly risk assessment that is reported to the Senior Readiness Oversight Council (SROC) chaired by the Deputy Secretary of Defense. The SROC brings the Service Chiefs, Under Secretaries of Defense, Under Secretaries of the Military Departments, and the Vice Chairman of the Joint Chiefs of Staff together for a monthly forum to review current readiness. Based on assessments provided to the SROC, a

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<sup>41</sup> Cohen, *Report of the Quadrennial Defense Review*, p. 35.

quarterly report on military readiness is submitted to the Senate Armed Services Committee and House National Security Committee.

The most recent such quarterly report to Congress covers January–March 1998. It states that U.S. forces remain ready to execute their assigned missions and that first-to-fight forces maintain a high level of readiness. Army readiness trends are reported as follows:

- The Army's personnel strength is improving. Force structure reductions, reduced attrition, strong retention, and improved recruiting have resulted in a positive trend in the Army's operating strength, which should continue until the seasonal negative operating strength deviation of the summer months.
- Equipment readiness remains strong overall.
- Training readiness is stable. Contingency operations impact on collective unit readiness for deployed units. Cross-leveling to meet deployment standards has a negative impact on units left behind.
- The readiness of Army "enablers" (critical units or capabilities essential to support joint operations) is improving. Fill of preposition sets continues to progress and ongoing delivery of LMSRs (Large Medium Speed Roll-on/Roll-off ships) is greatly improving the prepo (prepositioned equipment) afloat capability.

As part of the JMRR process, the Joint Staff specifies a warfighting scenario each quarter to ensure a robust assessment of the military's most demanding missions. For the quarter most recently completed, the scenario started with current ongoing operations in all geographic CINCs' areas of responsibility, then incorporated a worldwide "ThreatCon Charlie" (an increased state of security alert caused by an increased probability of attacks on U.S. forces), and continued with the outbreak of two major theater wars—first in Korea, and then in Southwest Asia. DoD reported to the Congress: "For this quarter's scenario, most major combat and key support forces are ready to meet assigned taskings less those employed to or recovering from their SFOR/IFOR (Stabilization Force/Implementation Force) mission in Bosnia." The report adds that the readiness of

those units (the ones employed in or recovering from Bosnia) “does not present an unacceptable risk to execution of the National Military Strategy.”<sup>42</sup>

The quarterly report to Congress also notes that record low unemployment and a business environment that is continuing to grow have resulted in a lower propensity for young people to enlist in the military, and that these same factors, combined with quality of life issues, are leading larger than normal numbers of personnel to leave the military for civilian jobs, especially in the aviation and technical skills areas. It says that despite these challenges, the Services are maintaining current personnel strength (the Army was at 100 percent of its recruiting goal to the end of the quarter) and do not consider personnel strength a readiness problem, except in some selected skills.

The only Army skill highlighted in the report is Apache Warrant Officer pilots. The Army has a shortage of 80 (979 of 1,059 operating strength), but the situation is reportedly improving through the use of selective continuation, call to active duty, increased Warrant Officer accessions, and a proposed Army Aviation Continuation Pay bonus. (How well the latter will work is an open question. The report goes on to say that Air Force and Navy Aviation Continuation Pay bonus “take rates” are near all-time lows.)

The guardedly optimistic assessment of Army readiness provided to Congress in the latest quarterly report on military readiness contrasts sharply with other information provided by the General Accounting Office (GAO). In testimony before the Subcommittee on Readiness and Military Personnel of the House National Security Committee, the GAO’s Director for Military Operations and Capabilities Issues in the National Security and International Affairs Division reported on the observed readiness of the Army’s five later-deploying divisions.<sup>43</sup>

The GAO noted that in the aggregate, the five later-deploying divisions had an average of 93 percent of their personnel on board at the time of GAO’s visits. However, aggregate data does not fully reflect the extent of shortages of combat troops, technical specialists, experienced officers, and NCOs that exist in those divisions. The GAO said the readiness reporting system that contains the aggregate data on these divisions does not

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<sup>42</sup> *Quarterly Readiness Report to the Congress, January-March 1998*. This report is published as an unclassified document, with classified appendixes published under separate cover. The IDA study team had access only to the unclassified portion and thus does not know which Army units were found unready to meet their assigned taskings in two major theater wars occurring almost simultaneously.

<sup>43</sup> Mark E. Gebicke, “Observations on Personnel Readiness in Later Deploying Army Divisions,” 20 March 1998.

fully disclose the impact of personnel shortages on the ability of units to accomplish critical wartime tasks. As a result, there is a disconnect between the reported readiness of these forces in formal readiness reports and the actual readiness observed by GAO. The disconnect exists because the readiness reporting system does not consider some information that has a significant impact on a unit's readiness, such as operating tempo, personnel shortfalls in key positions, and crew and squad staffing. The Army's priority in assigning personnel to these divisions, Army-wide shortages of personnel, frequent deployments to smaller-scale contingencies, and the assignment of soldiers to tasks outside their specialties are the primary reasons for personnel shortfalls.

The impact of personnel shortages on training and readiness is exacerbated by the extent to which personnel are being used for work outside their specialties or units. According to commanders in all five divisions, understaffing of squads and crews, transfer of noncommissioned officers (NCOs) from the crews and squads they are responsible for training to other duties, and cross-leveling personnel to other units as fillers for exercises and operations have degraded the divisions' capability and readiness. If the Army had to deploy for major theater war, these divisions would fill their units with Individual Ready Reserve Soldiers, retired Service members, and newly recruited soldiers. However, the Army's plan for providing these personnel includes assumptions that have not been validated, and there may not be enough trained personnel to fully staff or fill later-deploying divisions within their scheduled deployment times. The GAO concluded by noting that solutions, if any, will depend on how the Army plans to use these divisions in the future.

It is outside the scope of this study to assess the accuracy and utility of the readiness reporting system. Congress itself is taking steps to obtain a more reliable measurement of DoD's ability to successfully conduct two major theater wars on the timelines of the theater CINCs.<sup>44</sup> For purposes of this study, it is sufficient to say that maintaining readiness for MTWs while conducting multiple SSC operations worldwide is putting a strain on the Army.

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<sup>44</sup> Jim Snyder, "Panel Votes To Change Readiness Reports To Better Reflect Field Status," *Inside the Air Force*, 8 May 1998, p. 4.

## 5. Planned and Ongoing Army Modernization Efforts

At the same time it is trying to balance readiness for MTWs against the requirements of ongoing SSC operations, the Army is also trying to prepare for the future. The weapons systems that handed a decisive military defeat to the Iraqi army in 1991 are being maintained and upgraded through the application of incremental improvements, but ultimately they will wear out—starting in about 2010.<sup>45</sup> To ensure it is ready for an uncertain future, the Army is pursuing several tacks.

Guided by *Joint Vision 2010*, the Army published *Army Vision 2010* to address the concepts, enablers, and technologies that will allow Army forces to achieve new levels of effectiveness.

Force XXI is an Army *process* that seeks to leverage the power of information technology through a series of Battle Laboratory and Advanced Warfighting Experiments (AWEs).

Army XXI is the near-term *product* of the Force XXI *process*. During the years 2000 to 2015, when current systems will begin to wear out, Army XXI will capitalize on validated concepts and information technologies to maintain the full spectrum and overmatch capabilities of the Army. It will be an improved version of the current force, with modernized elements enhanced with the latest information technologies to enable soldiers, leaders, and units to achieve full spectrum dominance. The Army's goal is to field a digitized division by the year 2000 and a corps by 2004.

Complementing the Force XXI process is the Army After Next (AAN) process—a broad range of studies, war games, workshops, and conferences that examine warfare to the year 2025. Where practical, the Army intends to pull forward the development of AAN systems to capitalize on leap-ahead technologies.

Research, development, and acquisition activities essential to force modernization require resources that can all-too-quickly be spent on the near-term requirements of contingency operations and readiness. Between FY89 and FY98, the Army's buying power has declined by 39 percent, and procurement has decreased by 62 percent. The Army is attempting to increase the share of its budget devoted to procurement with the help of reinvested savings realized through efficiencies, base closures, and personnel

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<sup>45</sup> *Knowledge and Speed*, p. 5.

reductions, but the \$20 billion added to modernization between FY99 and FY03 still does not fully cover the Army's modernization shortfall.<sup>46</sup>

## 6. Additional Data Points and Issues

The first step in crafting possible solutions was to verify and quantify—to the extent feasible—the assumed problems. The task order for this study indicated that SOF, light infantry, and military police—and by implication other specialized units—may be overcommitted, while other segments of the Army such as heavy forces, by comparison, are carrying a much lighter share of the peacetime workload. Additionally, there is an impression that the Active Army is stretched too thin by a force structure that is too large for the available manpower, while RC structure and manpower exceed valid requirements.

Data provided by the Army Staff and the Joint Staff indicate there are indeed pockets within the Active Army that can properly be labeled "stressed" (units committed to SSC operations far more frequently than the "rest of the Army"). However, the units in this category are not necessarily those one would expect. This area is misunderstood in part because, until recently, PERSTEMPO was not defined or routinely tracked by the Army. Hence, much of the conventional wisdom has been based on anecdotal reports. Additionally, some units are committed more frequently to SSC operations *intentionally*—as a matter of policy to protect the readiness of selected MTW early deployers. In fact, this policy has produced many of the reports about the 10th Mountain Division and its overcommitment. Further, PERSTEMPO data is transitory. Finally, the necessary differences in criteria for what constitutes "high demand" (120 days in one year for AC versus 120 days in 6 years for RC) make comparisons very subjective.

Another important data point is the extent of "true" AC shortfall. Knowledgeable commentators have put the difference between required and authorized spaces at 40,000.<sup>47</sup> The official Army figure following TAA-05 is in the range of 20,000.<sup>48</sup> However, much of that number includes positions that the Army would not fill even if the manpower were available. The vacant positions include those in Korea filled by KATUSA (Korean Augmentation to the United States Army) and medical slots in combat

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<sup>46</sup> Walker and Reimer, *United States Army Posture Statement FY99*, p. 35.

<sup>47</sup> Kroesen, "It's Time for a True Appraisal of the Base Force Requirement."

<sup>48</sup> Interview with LTC Dave Pearsall, DAMO-FDF, 13 March 1998, and follow-up discussions.



units filled by personnel better used in peacetime in non-deployable medical facilities. Army experts report actual structural manpower shortfall in combat divisions is closer to 5,000.<sup>49</sup> This is a more manageable number and one that several of the options developed below would, if implemented, correct.

One additional problem that surfaced during the study has long existed but until recently has never been acknowledged. The 1993 BUR determined that U.S. forces would be sized and structured to win two regional wars occurring almost simultaneously. At the same time, our strategy called for those forces to participate in peacekeeping, peace enforcement, and other multilateral efforts to broker settlements of internal conflicts and bolster new democratic governments.<sup>50</sup> Not until the QDR did our strategy explicitly acknowledge that elements of a force just big enough to fight two wars would, in the event of a war, have to withdraw from multiple SSC operations worldwide, reconstitute, and deploy in accordance with required timelines.

More recently, DoD has acknowledged that extraction and redirection of combat and combat support units from an ongoing contingency is a difficult, complex, and time-consuming task, which may well be complicated by a non-permissive disengagement environment.<sup>51</sup> The scope and seriousness of this problem are underscored by the recent announcement that the 1st Cavalry Division headquarters and one of its brigades will deploy to Bosnia soon. The 1st Cav is one of the Army's "first-to-fight" divisions, required to maintain high readiness at all times to deploy to a distant theater and conduct major combat operations. How well the division could function when split between Bosnia and Fort Hood, Texas, is uncertain.

## **F. DEVELOPING OPTIONS**

### **1. Analyzing Force Structure Balance**

In a narrow sense, the study would be complete if it addressed only the PERSTEMPO and manpower shortfall problems. However, assumptions underlying the study task order posit these two issues only as symptoms of a larger problem; namely, the suitability of the current balance between heavy and light forces within the Active Army

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<sup>49</sup> Ibid.

<sup>50</sup> Aspin, *Report of the Bottom-Up Review*, pp. 8–9, and Clinton, *A National Security Strategy of Engagement and Enlargement*, pp. 6–7.

<sup>51</sup> DoD, *Quarterly Readiness Report to the Congress, October-December 1997*, p. 17

structure. Larger questions emerged: Is the current mix of six heavy and four light AC divisions best suited to meet future mission needs, which clearly require balancing the primacy of MTW against the near certainty of frequent SSC operations? And could we better use ARNG combat structure to satisfy later deployment needs for a second MTW? In searching for answers we analyzed future missions and evaluated the current force structure and several alternative options against mission requirements. This process produced a mission/capabilities matrix (figure 1) that highlights a number of issues.

Missions		Heavy				Mid				Light				SOF				CS			RC	
		Arm Cav	Arm	Mch Inf	SP Arty	Mtz Cav	Mtz Inf	Alk Helo	Amb Inf	Abn Inf	Lt Inf	Lt Arty	Rngr	SF	PSY OP	CA	Engr	MP	Lift Avn	Elements		
Maj	Intel/Recon	XX	x	x		XX	x	X	x				X	XX					x	x		
	Deep Atk/Counter C3				XX			X	x	X			XX	XX						X		
	Maneuver	XX	XX	XX	x	XX	XX	XX	X										XX	x		
Cbt	Attack	X	XX	X		x	X	XX	X	X	x		x							x		
	Defend	x	X	XX	x	x	XX	x	x	X	x		x				x			x		
Ops	Urban Terrain Control			x		x	XX		X	X	XX		x	X	X	X		x	x	x		
	Mob/Survivability																XX			X		
	Fire Spt/Counterfire/ Air Def				XX							X								X		
Lim	Rear Area Sec/ POW	X		X		X	X	x	X	x	x				X	X	x	X	x	X		
	Counterinsurgency	x		x		x	X	x	X	X	XX	x	x	XX	X	X		x	X	x		
Conf	Seizures/Forced Entry							x	x	XX			XX									
	Raids							x	x	X	x		XX									
Coer ops	Counter WMD												XX	X								
	Counter Terr/Hostage Res												XX									
	Deter/Show Force/Sanctions	x	x	x	x	x	X	x	x	X	XX	X	X		X							
P e a c e	Peace Enforcement	x	x	X		X	X	x	x	X	x	x	x		X	X	x	x	x	x		
	Humanitarian opns -Opposed			X		x	X	x	x	X	X				X	X	x	x	x	x		
	Refugee/Reconstruction Asst						x		x	x	x					XX	X	X	X			
	Noncombatant Evac Opns									X			XX									
e	Peacekeeping			X		x	X		x	X	X				X	X		x	x	X		
	Exercises			x		x	X	x		X	X	x	x	X						x		
Pres Stab	Mil-to-Mil Contacts													X						x		
	Civic Action													X	x	X	X		x	x		
Spt to Civ Auth	Int Disaster Relief						x		x						X	X		x	x			
	Int Humanitarian Relief						x		x		x				X	X		x	x			
	Int Counter Drug															X	X		x	x		
	Dom Disaster Relief/Environ						x		x	x	x					x	X		X	XX		
	Dom Riot Control						X		X	X	X							X	x	XX		
	Dom WMD Defense																			X		
	Dom Counter Drug Ops													x				x	x	x		
Dom Law/Immig Enforcement																	x	x	x			
Key																						
Capability:		Prime	XX	Major	X	Some														x		

**Figure 1. Army Operational Forces Mission/Capability Analysis**

Briefly, the issues of interest were as follows:

- Heavy forces, while optimized for MTW (with some parts existing only to satisfy MTW requirements), are not well suited for the majority of other missions.
- Light infantry, while valuable for most of the SSC mission range, is not optimized for MTW.

- Middleweight forces are useful across the entire mission range.
- Army SOF are exceptionally well suited for current and future requirements.
- Increases in AC combat support units, such as engineers, military police, and lift aviation—all of which appear to offer advantages across the mission spectrum—probably are not justified.
- Elements of the RC are important contributors for all missions save forced entry and coercion operations.

*Heavy forces are not well suited for the majority of other missions.* With the possible exception of Bosnia, heavy units have not been the capability of choice for smaller-scale contingencies—operations other than war normally require organizations that are both rapidly deployable and manpower (rather than equipment) intensive. Within heavy units, tanks and self-propelled artillery in particular are of value in SSC operations only in small numbers, and in some cases not at all. Heavy divisions also require more non-divisional support structure, further aggravating the imbalance described earlier. One might ask, then, How many AC heavy divisions and ARNG heavy eSBs and divisions are needed for two MTWs?<sup>52</sup> The study team developed several options that either reduce the number of AC heavy divisions from six to five in favor of lighter organizations or streamline the composition of AC heavy divisions to provide manpower for reallocation to units more suited to SSC operations, placing greater reliance on heavy eSBs for the second of two MTWs.

*Light infantry is not optimized for MTW.* Compared with airborne infantry (which is also considered “light”), light infantry is less capable. Light infantry's main advantage of strategic mobility requires a permissive environment at its port of debarkation and a relatively low-intensity environment at its point of employment. Airborne infantry has more utility due to its forced-entry capability both for MTW and for certain contingencies, such as noncombatant evacuation operations (“NEOs”). The matrix also suggests that Ranger infantry might be a better investment for limited manpower, given its value in countering asymmetric threats. Thus, more light infantry per se may not be the best way to improve the force structure. Nevertheless, the concept of trading heavy for

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<sup>52</sup> Although heavy divisions may no longer be justifiable in the number maintained, the overall number of Army divisions is easier to justify. Of 10 AC divisions extant at the beginning of the Korean War, 6, plus 3 separate regimental combat teams, had to be deployed in the war's first 3 months. Two of the divisions remaining in the United States had to be reduced to shells to fill those deployed. Of eight RC divisions mobilized to fill the gap, two went to Korea and two to Germany. Their combined number is equivalent to today's structure and the uncertainty prevailing in both periods is similar.

light forces warrants examination. Consequently, the study examined an option along these lines. It did not examine the option of converting light infantry to airborne. Since a single airborne division has sufficed for 25 years and none has jumped in division strength since World War II, and since Marine Expeditionary Units (Special Operations Capable) provide some additional forced-entry capability in littoral operations, more airborne capability does not appear needed.

*Middleweight forces are useful across the entire mission range.* Middleweight units have the tactical mobility that is notably absent from light units and are therefore much more effective in MTW and SSC operations. Airmobile infantry is included in the analysis but not examined further because of its limitations in strategic mobility and the costs associated with procuring helicopters for additional units. However, motorized infantry and cavalry, which are more strategically mobile, appear to offer significant advantages that may be affordable. Although difficult to quantify without further research (a good subject for Army experimentation), intuitively it appears that technology available today could make motorized units far more lethal and protectable than they were when the Army last considered the motorized concept in 1989. The impressive capability demonstrated by Marine Corps light armored infantry battalions during the Gulf War is certainly indicative of the potential of Army motorized forces. Several options therefore examine ways in which motorized forces could be substituted for other AC units to add a strategic dimension now largely missing from the Army structure.

*Army SOF are exceptionally well suited for current and future requirements.* SOF provide important, and in some cases unique, capabilities across the mission spectrum. These capabilities are in such high demand that every type of Army SOF unit is designated low-density/high-demand (LDHD) and thus is intensively managed to ensure priority CINC requirements are satisfied without "breaking" the force. This fact argues for expansion of this relatively small and low-cost piece of the Army. Because Army SOF capabilities are unique, however, it is difficult to make judgments regarding the appropriate extent of expansion or the trade-offs with other elements within the force. Instead, an option is offered which argues for a modest increase in support structure within each Special Forces Group, one additional Civil Affairs (CA) battalion, and one additional Psychological Operations (PSYOP) battalion. Providing incremental increases of a high-leverage, low-cost capability already in high demand seems reasonable provided "high end" requirements for MTW can still be met. Examining this option provides the order of magnitude manpower bill. If combined with other options that offer manpower

savings, a modest increase in SOF appears feasible and smart. This option does not include an increase in Ranger forces or SOF aviation. The high priority both enjoy is assumed to ensure they are appropriately sized to meet all their current and projected mission requirements.

*Increases in AC combat support units probably are not justified.* These organizations satisfy unique requirements in multiple-mission environments, but compared with other types of units, they are less fungible. Since they do not appear on the LDHD or HDA list and there is no rationale for increasing their number, the IDA study team did not seek or develop any options to increase their strength.

*Elements of the RC are important contributors for all missions save forced entry and coercion operations.* In some cases, RC units are already the first called, and their number of missions will grow. The recent expansion of the ARNG mission to include weapons of mass destruction (WMD) consequence management will likely be followed by other additions in the area of support to civilian authorities, overseas presence, and peace operations. The critical variables in use of RC are the urgency of employment and the complexity of the tasks to be performed. Clearly, there is a difference between short-notice “come-as-you-are” deployments for domestic disaster relief and the level of proficiency required for combat operations in war. Still, even some MTW tasks are manageable by RC on short notice and, given time to prepare, RC units can be expected to perform them on a par with AC. The study therefore developed several options that seek to exploit RC potential, either by tasking the RC with missions for which adequate preparation time is available or by structuring the RC contribution so it is realistically achievable on relatively short notice.

## **2. Applying the Evaluation Criteria**

The evaluation criteria detailed in section D, Study Methodology, influenced the selection of options for study and their design. Maintaining MTW capability while increasing the fungibility of the force as a whole for smaller-scale contingencies was key to strawman option design. Both aims are achievable. An increase in heavy force structure was not seriously considered as an option since it would significantly reduce forces available for SSC operations. Improving mobility and readiness and reducing PERSTEMPO were also important guides for option suitability. Minimizing cost and manpower were seen as essential—an option requiring an increase in both contains fatal weakness unless offsets are available. For example, cost excluded consideration of

increases in dedicated aviation and drove the focus in motorized units to armored High-Mobility Multipurpose Wheeled Vehicles (HMMWVs) rather than Light Assault Vehicles (LAVs) to make near-term implementation feasible. Improving RC integration was applicable only in selected cases but was achieved to some degree in half the options developed. The remaining criteria were all considered important, but failure to satisfy one or even several was not necessarily seen as a major weakness.

### **3. Selecting Options for Detailed Evaluation**

We used five distinct but overlapping approaches to select options for detailed evaluation. Briefly, they were as follows:

- Explore whether some issues under study might best be addressed through policy changes, as distinct from force structure changes.
- Increase the availability of high demand units.
- Seek more aggressive use of the RC in peacetime engagement and SSC operations, as well as in MTWs.
- Focus on possible long-term corrections to the imbalance in strategic versus tactical mobility, assuming that the current mix of heavy and light forces still reflects a Cold War bias toward the heavy side.
- Reallocate manpower among the Active Army, ARNG, and USAR.

*Explore whether policy changes might be more efficacious than force structure changes for some issues under study.* Some of the readiness and PERSTEMPO problems that cause perceptions of stressed units might be caused by deliberate decisions to use some parts of the existing force structure repeatedly while not using others at all. This was the case with the 10th Mountain Division, which for a time caused it to become the “fire brigade” for SSC operations. Until recently, units assigned outside the United States (including Hawaii and Alaska) were generally exempted from the pool of units available for contingencies overseas. With a much smaller force, this policy should be examined at regular intervals and as the situation dictates, as it was when the 25th Infantry Division sent a brigade from Hawaii to relieve elements of the 10th Mountain Division in Haiti.

The policy of rotating entire units, rather than individuals, contributes to the turbulence and PERSTEMPO problems. A soldier can conceivably be assigned to a division in the continental United States (CONUS); go on a 6-month or longer deployment to a smaller-scale contingency such as Bosnia, Macedonia, or the Sinai; and return to be transferred either to a short-tour area such as Korea or to a division in Europe

as it prepares to deploy to Bosnia. The study crafted two options that break new ground by repackaging old ideas. One proposes tasking mechanized infantry and non-infantry units, both heavy and light, to reconfigure temporarily for the light and motorized infantry role that seems to characterize most SSC missions—an approach employed successfully by the British Army in Northern Ireland and Cyprus. The second “policy option” would eliminate the problem of rotating units to long-term SSC operations by creating permanent (for as long as they are needed), specialized units to which replacements could be rotated on an individual basis, as is done throughout most of the Army.

*Explore ways to increase the availability of high demand Army units.* The second approach centers on the problem of units that find themselves repeatedly tasked to perform peacetime engagement and SSC operations while at the same time apportioned in the deliberate planning process to one or more deployment plans for MTWs. The GMFP is a tool for managing “force elements consisting of major platforms, weapons systems, units, and/or personnel that possess unique mission capabilities and are in continual high demand to support worldwide joint military operations.”<sup>53</sup> All Army SOF units and personnel are thus categorized, as are Army Patriot missile units. One option addresses the chronic peacetime overcommitment of SOF assets by correcting a support structure shortfall that causes Special Forces “A Team” soldiers to be diverted from their primary missions to perform support and staff functions, adds a tactical battalion to the AC’s 4th PSYOP Group, and doubles the share in the AC of the Army’s CA structure. A second option offers potential ways to support increased OPTEMPO of a high-demand weapons system such as Patriot without raising the PERSTEMPO of its crews.

*Seek more aggressive use of the RC in peacetime engagement and SSC operations, as well as in MTWs.* One option would assign responsibility *in toto* for selected peacetime missions to existing ARNG structures. Another would reduce AC structural manpower shortfall by creating “hybrid” divisions with a mix of AC and RC subordinate units. Another would convert a later deploying heavy division (one apportioned to the second of two MTWs) into a light division that can be employed across a wider range of missions, especially missions short of MTW. The significant

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<sup>53</sup> LDHD assets are normally deployed situationally, in response to a contingency, rather than rotationally in accordance with a schedule. Naval assets such as carrier battle groups that are in high demand to provide overseas presence are managed under a separate Global Naval Force Presence Policy (GNFPP).



reduction in AC combat power this option would entail would be offset by greater reliance on heavy eSBs for the second of two MTWs.

*Focus on possible long-term corrections to the imbalance in strategic versus tactical mobility.* Several options examine ways the balance might be shifted toward middleweight forces to improve the overall mix of Army capabilities for war and operations other than war.

*Reallocate manpower among the Active Army, ARNG, and USAR.* Army manpower—overall and by component—is constrained. Some of the options discussed here entail manpower savings; others generate new manpower requirements. One option withdraws assets from divisions and “pools” them at corps level to permit their employment in mass. Another generates manpower savings by inactivating non-divisional units or converting them to RC.

These five approaches produced 12 different options that can be implemented independently. As previously noted, the options can be mixed and matched, offsetting disadvantages of one with the advantages of another, making several appear even more attractive and feasible than they otherwise might be.

## **G. OPTIONS FOR RELIEVING STRESS ON THE ARMY**

### **1. Change Policy**

#### **a. Temporarily reconfigure mechanized infantry and heavy and light non-infantry units to perform a light or motorized infantry role in smaller-scale contingencies**

One way to alleviate disproportionately high personnel tempo among the lighter portions of the force that are most in demand for operations other than war is to “re-role” later deploying heavy units to perform infantry type tasks. The British Army has long turned to artillery, engineer, and armor units for peacekeeping duties in Northern Ireland, Cyprus, and elsewhere. The U.S. Army has itself, in the past, required combat and combat support units to train for non-traditional missions, such as control of domestic civil disturbances during the 1960s.

Mechanized infantry, armor, engineer, field artillery, and air defense artillery battalions are organized, trained, and equipped to provide specific capabilities, all optimized for MTW. Fundamentally, however, all combat and CS units consist of



disciplined manpower with built-in command and control, built-in capabilities for self-support, and some built-in means of tactical mobility. With some reconfiguration, appropriate additional training, and perhaps a different set of mission-specific equipment, these units could be tasked to perform missions of the sort that currently fall upon a narrow segment of the total force, in effect spreading the workload across a larger population.

The QDR noted that smaller-scale contingencies will likely pose the most frequent challenge for U.S. forces through 2015 and that, over time, substantial commitments to multiple concurrent SSC operations will certainly stress U.S. forces in ways that must be carefully managed. The QDR found further that U.S. forces must be organized, trained, equipped, and *managed* with multiple missions in mind. This option represents a way to *manage* Army forces so as to spread peacetime deployments across a wider portion of the force.

This option does not contemplate short-notice taskings to satisfy the requirements of a “come-as-you-are” crisis that suddenly develops; infantry is still the capability of choice for the initial foray into a Somalia or a Bosnia. This option does, however, suggest that the Army consider tasking heavy and non-infantry units for *predictable, temporary assignment, where appropriate, to scheduled rotations* in such smaller-scale contingencies and peacetime engagement missions.

Our analysis assumes that forces stationed in Korea and forces that are part of the early-deploying XVIII Airborne Corps should remain available for MTW or rapid deployment to as-yet unforeseen, come-as-you-are smaller-scale contingencies. Even so, this option could increase the number of Active Army battalions and squadrons available for rotational deployment to smaller-scale contingencies from a realistic total of 18 light infantry battalions to as many as 146. It is important to note, however, that mechanized infantry and tank battalions, armored cavalry squadrons, divisional artillery, engineer, and air defense artillery battalions, and non-divisional artillery and engineer battalions differ significantly in size. They cannot all be reconfigured in the same way, but they can all be reconfigured.

The Title 10 responsibilities of the Army are to “organize, train, and equip” forces to perform missions. Under this option, existing units that are organized for one mission would be temporarily reorganized to perform in smaller-scale contingencies, trained in light or motorized infantry type tasks essential to the mission, and equipped as appropriate to perform those tasks. Following completion of the mission, the units would

be reorganized, trained, and equipped with their original equipment to perform the mission for which they were originally and optimally designed.

For detailed evaluation of this option, see appendix B.

**b. Create TDA "constabulary-type" units for established peacekeeping and similar missions**

Smaller-scale contingency missions that are of long duration can be resourced in one of two ways: (1) by rotating whole units, as the British Army has done in Northern Ireland and the U.S. Army has done to date for the Sinai, Macedonia, and Bosnia, or (2) by rotating individual replacements, as the U.S. Army does almost everywhere else. This option envisions creating TDA organizations for specific long-term peacetime engagement missions and smaller-scale contingencies. Each unit thus created would be filled by the Army personnel system, with soldiers assigned to the unit for unaccompanied short tours of 12 months on PCS orders, just as units in Korea and other short-tour areas are filled now.

Use of the term "constabulary" is not intended to suggest that units thus created would have law enforcement powers or responsibility for training local police. Those are separate issues, driven by U.S. law, that are affected by the specifics of peace agreements such as the Dayton Accords and are beyond the scope of this study. Rather, the term is used to evoke creation of the United States Constabulary after World War II. Constabulary units were created by overnight conversion of existing combat units of several types into units called Constabulary Squadrons and Constabulary Mechanized Troops.

A soldier serving in an armored field artillery battery as an artillery crewmember at the end of World War II could have found himself suddenly serving as a reconnaissance car crewman, scout, light truck driver, or rifleman in a constabulary mechanized troop. Such sudden reclassification from one MOS to another could be harmful today. Soldiers trained as artillery crewmembers could, with training, perform in a light or motorized infantry role for a limited mission such as peacekeeping, but on completion of that mission, they should return to the artillery MOS for which they were fully trained rather than being reassigned in an infantry MOS.

This option therefore envisions maximum flexibility in specifying the officer branch or enlisted MOS for positions in the TDA units. A TDA unit for the Multinational Force and Observers mission in the Sinai (MFO-Sinai), for example, might be patterned

after an infantry battalion, but individual positions might list "Combat Arms Immaterial" as the officer branch or "Duty Soldier" as the enlisted MOS. By this means, soldiers serving in any combat unit could, like earlier Constabulary Forces, be assigned overnight to a unit created for a mission other than combat. With the population eligible for assignment made as large as practicable, the PERSTEMPO burden would be spread across the entire Army rather than falling disproportionately on a particular skill.

As a TDA unit, its output, size, and shape could be changed by the theater commander to accommodate changes in the mission or unit workload. Upon completing its mission, the unit could be disbanded. If organized under a TDA, the unit could include military personnel of all components—Active, Army National Guard, and Army Reserve. It could include civilian employees as well, including host nation or third-country civilians. One example of an existing TDA unit created for the sole purpose of performing a specific mission is the Joint Security Area Support Group in Panmunjon, Korea. The unit is commanded by an American colonel, but its soldiers are from the Republic of Korea as well as the U.S. Army.

The current defense strategy determined in the QDR requires that U.S. forces be able to withdraw from SSC operations, reconstitute, and then deploy to an MTW in accordance with required timelines. Extraction from ongoing contingencies is a difficult, complex, and time-consuming task, requiring time to extract, time to reconstitute and retrain to acceptable readiness levels, and time to deploy to an MTW. The TDA units proposed in this option would be manned at the expense of the rest of the Army, including combat units, exacerbating existing shortages and impacting readiness accordingly. In the event of an MTW, however, the TDA units' equipment would stay in place, and all or part of their manpower could be reassigned to fill combat units deploying to the MTW or to serve as individual replacements for units already in combat. The TDA units could also be backfilled on an individual or unit rotation basis by soldiers from the mobilized RC. The advantages of this option from a readiness perspective therefore are, first, that AC combat units would be freed of commitments and thus able to concentrate more fully on training for their "high end" combat missions. Second, AC combat and CS units would not have to be extracted from ongoing contingencies, with all the risks inherent in such an operation, and redirected to an MTW.

This option would spread the PERSTEMPO burden of smaller-scale contingencies and peacetime engagement missions across the widest possible base, rather than confining it to particular type units or particular skills. This option would permit

soldiers of many MOSs to gain experience they might otherwise never receive, and would reduce the frequency with which soldiers holding particular skills, such as light infantry, have to deploy away from their home stations. A significant downside to this option is the inevitable lack of unit cohesion in a "pick-up" unit as opposed to an intact TOE unit.

This approach could be especially helpful in providing command and control for SSC operations such as Bosnia, where a two-star commander is desired. The 2 division headquarters in Europe have already been rotated to Bosnia, and the Army recently announced that the 1st Cavalry Division headquarters will deploy next, along with 1 of its 3 maneuver brigades and 3 of its 10 maneuver battalions. Taking an entire division headquarters to provide command and control for a third of a division may seem excessive, but Bosnia is a multinational operation conducted under NATO auspices, and the U.S. headquarters provides command and control for the forces of many other nations. Creation of a TDA headquarters would relieve the Active Army of the need to rotate headquarters that are already fully engaged. It would also add to stability by eliminating the complete leadership turnover that occurs when entire units rotate. When units are manned using the individual replacement system, the tour lengths of key personnel can be staggered, providing for continuous overlap of experience.

Creating TDA constabulary-type units to perform specific, standing, long-term smaller-scale contingency missions would ameliorate the training, readiness, and PERSTEMPO impacts associated with the current system of rotating units every 6 months. Filling such units with individual replacements would cut into the assigned strength of every unit in the Army, but if the TDA positions were open to a wide variety of branches and skills as well as to soldiers of all components, the impact would be spread across the entire Army.

For detailed evaluation of this option, see appendix C.

## **2. Increase Availability of High Demand Assets**

### **a. Increase Army Special Operations Forces by augmenting combat service support structure supporting Special Forces and by adding one Psychological Operations battalion and one Civil Affairs battalion**

Special Forces (SF), Psychological Operations (PSYOP), and Civil Affairs (CA) units all are categorized as LDHD assets requiring intensive management under the GMFP. All three exist in small numbers and are in constant demand by geographic

CINCs who find their unique skills especially useful in carrying out day-to-day SSC operations. These same units are of vital importance at the high end of the mission spectrum during MTW. The proposed option for change envisions a marginal increase in SOF structure to capitalize on the leverage these forces provide across the mission spectrum.

In the case of SF, a structural deficiency, left over from the Cold War when alternative means of support could reliably be assumed available in a theater, limits the support available to deploying SF battalions. As a result, overall capability to support multiple SF deployments worldwide is degraded. Accordingly, the proposed option would increase the 528th Support Battalion to its original required AC strength of 724, an increase of 324. It would also increase the strength of the Support Company in each SF battalion from 99 to 125 and augment the battalion staff by 10 positions. For 15 SF battalions in the AC, this would require an increase of 540 spaces.

Adding one AC tactical PSYOP battalion would bring the number of AC battalions in the 4th PSYOP Group to 6 and require 231 spaces. An additional CA battalion would double AC strength in CA and require 212 spaces. If recruiting CA personnel for this AC unit is deemed infeasible, an additional CA brigade of three general-purpose battalions in the RC could be substituted. This would require an increase of 516 USAR spaces. The total increase in AC SOF manpower envisioned in this option would be 1,307 spaces.

This option corrects an under-structure problem in Army SOF at relatively low cost. It would improve the productivity of three SOF functional areas in almost constant demand. The primary disadvantage of the option is the requirement to divert 1,307 AC manpower spaces from elsewhere in the Army to SOF.

There would be no significant change in personnel costs since the changes envisioned would be made within current AC and RC manpower authorizations. Offsets elsewhere in the force structure are required. Activation of a PSYOP battalion and a CA battalion would entail one-time costs for equipment, most of which could be avoided if the equipment were drawn from existing stocks. Clearly this is a low-cost, high-return investment.

For detailed evaluation of this option, see appendix D.

**b. Allocate additional manpower to existing unit sets of high-demand equipment to alleviate PERSTEMPO stress on weapon crews**

Assets in high demand can be skilled *people*, such as the SOF elements addressed in the preceding option. High demand assets can also include *weapons*, such as the Army's Patriot air defense missile. In essence, a weapon system consists of hardware and people. The hardware (and software) can be operated almost continuously, with periodic time-outs for preventive maintenance checks and services. The soldiers that man and support the weapon system, however, cannot operate continuously. The standard way to accommodate human limitations and still provide for nonstop operation of expensive machinery is to have additional trained operators, working in shifts.

One means to accomplish this for Army weapon systems such as Patriot would be to create two complete crews for a given unit set of equipment, allowing the equipment to be operated continuously by alternating crews. This is what the U.S. Navy did during the Cold War to keep ballistic missile submarines at sea. Each submarine had a Blue crew and a Gold crew. While one was deployed on a cruise, the other would be ashore, training in preparation for its next deployment but able to work more-or-less standard duty days and to spend off-duty time with their families. Upon completion of the first crew's deployment, the submarine would return to its homeport, perform any needed maintenance, take on provisions, and quickly get back on patrol with a fresh crew in place.

If demand for Patriot batteries ever reaches the stage where "Steady-State OPTEMPO" is regularly exceeded, one solution would be to create additional batteries, without equipment, in CONUS or Europe, then to alternate deployment of such units to an equipment set in a contingency area. With more "unit sets of personnel" in existence than unit sets of equipment, rotations to battery sets in Kuwait, Saudi Arabia, Korea, and other short tour areas would be less frequent, and PERSTEMPO would be reduced accordingly. A variation would be to create additional units consisting only of those skills and positions that are unique to the weapon system in question. A "Gold" Patriot battery might therefore have all its air defense officers, system-qualified warrant officers, and enlisted Patriot crewmembers and maintainers, but would not have a full complement of common skills and specialties that are available elsewhere in the Army. The core Patriot capabilities of such a unit could be supplemented for overseas deployments with cooks, medics, wheeled vehicle mechanics, and other skills essential to deployment but not to Patriot operations.

Yet another way to get more use out of costly equipment such as Patriot and other weapon systems would be to borrow a concept from the Air Force. The Air Force Reserve's Associate Program pairs a Reserve unit with an Active Air Force unit to share active duty aircraft and equipment. Reserve associate crews fly regularly scheduled strategic airlift and aeromedical airlift missions, reducing the Air Force Air Mobility Command's personnel and overhead costs. Associate unit maintenance personnel provide a surge capability that permits increased flying necessary during contingencies or in wartime.

This concept could be adapted to Army needs by pairing an ARNG Patriot battery or battalion with an AC counterpart to share launchers, fire control equipment, and other costly equipment unique to the Patriot mission. For SSC operations, in keeping with DoD policy, consideration would be given to accessing volunteer crews and individuals from the ARNG Associate Unit. The ARNG could also be tasked under PSRC authority to provide whole units, individual crews, or individual fillers.

Capabilities such as Patriot that are centered on expensive and complex equipment and in high demand may run into PERSTEMPO constraints before the equipment itself reaches its full operating potential. Creation of a complete or partial duplicate unit—without the expensive equipment—would permit the Army to alternate crews to a deployed set of equipment. This option envisions supporting increased OPTEMPO of high-demand weapon systems without raising to intolerable levels the PERSTEMPO of soldiers who crew, support, and maintain them.

For detailed evaluation of this option, see appendix E.

### **3. Leverage Capabilities of Army Reserve Components**

#### **a. Task the Army National Guard to provide up to a brigade-sized unit for predictable smaller-scale contingency missions**

This option envisions turning a mission or missions currently performed by Active Army forces over to the ARNG, and leaving it to the Guard to manage rotations so that the required capabilities are maintained on station at all times. This option could be implemented by ordering units and individual members of the Guard to active duty without their consent, under any of the various statutory provisions that authorize involuntary call-up, or by ordering members to active duty with their consent. The latter alternative is preferred.



This option would relieve Active Army combat forces, which are required early in any MTW scenario, of some portion of the PERSTEMPO burden associated with frequent SSC operations and peacetime engagement activities. The TAA-05 force will contain 30 ARNG brigades, counting divisions and eSBs. Assuming a 6-month brigade rotation to a mission such as Bosnia, it would take 15 years to go through the ARNG combat structure one time. If the units formed for such missions are documented so that a wide range of MOSs can fill a given position (e.g., "combat arms immaterial" or "duty soldier"), the population from which to draw ARNG volunteers would be much larger, spreading the PERSTEMPO burden even more. This option would permit soldiers and leaders of the tasked divisions to gain experience they might otherwise never receive, and would reduce the frequency with which Active component soldiers and leaders deploy away from home stations.

Provided the mission's start date and duration are known far enough in advance to permit early assembly of volunteers and training of individuals and small units within the traditional Guard training program of monthly weekend drills and two-week annual training periods, the concept is to assign a mission or missions of up to brigade size to the ARNG, which would in turn task it to a Guard division commander, who would then determine how best to plan and manage rotations to ensure availability of required capabilities. In similar fashion, a rotating battalion-sized mission could be assigned to the commander of an eSB, particularly one that is not committed to a major theater war plan but is instead part of the Strategic Reserve.

The key to the concept is the predictability of the mission. Volunteers must be recruited, assembled, and trained on a firm time schedule leading to deployment overseas, performance of the mission, and return to homes and jobs by or on a date certain.

Reliance on volunteers rather than call-up of complete ARNG units does present a downside in terms of unit cohesion. A major strength of many RC units is the fact that they have been together for years and are not subjected to the same kinds of personnel turbulence as AC units. Pulling such cohesive units apart to build "pick-up units" of volunteers would result in both units having less cohesion than the TOE unit that provided personnel to the composite volunteer unit. Unit cohesion would be far better maintained if entire ARNG units volunteered or were called up.

Every ARNG unit committed to an SSC operation represents an AC unit that does not have to cease or slow down its training for the "high end" combat missions it was



organized, trained, and equipped to perform, and does not have to be withdrawn from a smaller-scale contingency before it can be deployed to an MTW.

Substituting an ARNG unit for an Active unit in SSC operations would entail significant costs that exceed anything currently programmed by the Army or the Army National Guard. Members of the Guard who are ordered to active duty, with or without their consent, draw the same pay as an active duty member with the same pay grade and time in service. There is no pot of money set aside to pay RC members ordered to active duty, so RC volunteers must be paid by diverting funds from other programmed activities. This funding problem works as a major disincentive to the use of RC units and members in SSC operations because the added costs must be taken “out of hide.”

For detailed evaluation of this option, see appendix F.

**b. Convert one or more Active component heavy divisions to hybrid units, with subordinate elements in both the Active and Reserve components**

The "hybrid" option considers converting elements within an AC heavy division to RC. It differs from the “roundout” and “roundup” approaches associated with the Cold War (and abandoned after the Gulf War) primarily in its conceptual approach. The hybrid division design retains all divisional maneuver battalions in the AC while placing substantial portions of the division’s CS and CSS structure in the RC. While the particulars are best left to the Army to decide, for purposes of evaluation this option postulates that the air defense battalion, three artillery battalions, two engineer battalions, an aviation battalion, the medical companies in the three forward support battalions, and the division’s chemical company would be converted to RC. Counting only the strength of these units, roughly 4,037 spaces of the 17,447 in a standard heavy division would be converted from AC to RC, and the AC complement of a heavy division would be reduced to roughly 13,410. Additional AC savings could be generated by converting proportional spaces in the headquarters battery of division artillery and the headquarters companies of the division support command and the engineer and aviation brigades. Incremental savings might also accrue in AC units supporting those converted to RC. An estimated 400 additional spaces could be converted for a total of 4,437. The AC division strength would then be about 13,010.

The hybrid option also dovetails with the new Army XXI heavy division—formerly called the “Conservative Heavy Division” (CHD)—announced by the Army on 9 June 1998. Though its structure is not known in fine detail, Army XXI heavy division

cuts appear to be taken from maneuver companies, artillery sections, and corresponding support slices, and will bring the division's AC strength down to just over 15,000. The additional reductions associated with the hybrid option would further reduce its AC strength to around 11,000.

The hybrid option retains in the AC the heavy division's 10 ground maneuver units, which have the most challenging training and readiness tasks associated with the synergies of combined arms and the uncertainties of enemy, terrain, and weather. This option therefore retains in the AC the core combat capabilities of the heavy division as the framework around which to build the hybrid team. The AC framework also includes the headquarters of division artillery and support commands and the aviation and engineer brigades, under which most of the RC battalion- and company-sized elements would fit. The core maneuver capabilities retained as AC in this option are those most useful in most cases—especially the infantry—for SSC operations. The unit types identified for conversion to RC are required primarily or exclusively for MTWs and are, in addition, those that have proven to be quite successful as RC augmentation to AC at corps level in the past. Assuming the division commander will have direct responsibility for the training and readiness oversight of the hybrid division's RC "plugs" and that they have resourcing priority comparable to eSBs, these units should be available for deployment in a relatively short time—perhaps 30 days or less.

Without most of its RC augmentation, the hybrid division is structured as a stand-alone, though less capable, unit. Depending on the local situation, it could deploy "as is"—without RC plugs, or with only some of them—for a lengthy SSC operation. It could also deploy as is for an MTW to provide deterrence or for limited employment, within its reduced capabilities, until PSRC authority is received and its RC augmentation can complete post-mobilization training and deploy.

Piecemeal deployment such as this is undesirable and avoidable if this option is implemented in no more than two of the six AC heavy divisions. These divisions would be earmarked for the second of two nearly simultaneous MTWs. Provided PSRC were an automatic reaction to initiation of the first MTW, two hybrid divisions tasked for the second MTW would have ample time to activate their RC plugs and ready themselves for deployment.

A significant downside to this option is that combined arms training would suffer due to lack of CS/CSS units with which to train. Even following activation of the

division's RC plugs, combined arms training would be difficult because the RC units' first priority would be to complete post-mobilization training requirements needed to be validated and certified for deployment.

Implementing this option could entail minor costs of moving people and equipment to new locations. In the long run, this option would produce savings because of the reduced annual operating costs of each hybrid heavy division.

Converting one or two heavy divisions to the hybrid model would free critical AC manpower for reallocation to eliminate shortfalls and improve readiness of the remainder of the force. It offers savings in annual operating costs as well. It retains in the AC the division's 10 ground maneuver units and the framework for rapid expansion. It maintains a stand-alone capability for deployment under certain conditions. The hybrid division's main disadvantage is reduced readiness for MTW. This would necessarily limit its sequencing in war plans to deployment late in the flow.

For detailed evaluation of this option, see appendix G.

#### **c. Convert an Active heavy division to light division configuration**

To increase the availability of capabilities most in demand for smaller-scale contingencies, this option would convert one AC heavy division of over 17,000 to a light infantry division of 11,681. The significant reduction in readily available, AC combat power would be offset by greater reliance on heavy eSBs for the second of two MTWs.

Light divisions are more useful for SSC operations than heavy divisions, as demonstrated by the experience of the 10th Mountain Division since the Gulf War. Clearly, another light division in the AC would ease the strain on the other four, all of which have been committed to SSC operations in varying degrees since the Gulf War. Another light division would help distribute the PERSTEMPO burden and could permit units to focus more attention on "high end" training heretofore left undone, enhancing their readiness for MTW as well as for unexpected, "come as you are" combat contingencies.

Such a conversion would produce significant manpower savings—more than 5,500 within the division and potentially double that in CS and CSS from the division slice. It would also produce dollar savings, as light division annual operating costs are about a third those of heavy divisions.

Reducing the AC by one heavy division would obviously reduce AC readiness and capability to conduct MTW. The risk can be managed, however, through greater reliance on ARNG heavy eSBs to fill the gap. If eSBs are deployable 90 days after mobilization, if the second MTW begins 45 days after the first, and if strategic lift is constrained by the requirements of two MTWs, heavy eSBs could be ready in time to meet deployment schedules and participate as first team players in the second MTW, thus offsetting the reduction of one AC heavy division.

Converting a heavy division to light configuration would increase the proportion of the AC most relevant to SSC operations while decreasing the proportion specifically organized, trained, and equipped for MTW. The new light division would save manpower and money, both of which would contribute to increasing AC readiness overall. The main disadvantages of this option are the risks associated with increased reliance on RC for the second of two MTWs and the relatively small impact it would have on reducing PERSTEMPO for the units, both AC and RC, that are actually the most stressed by frequent SSC operations. Before implementation, this option would require simulation and field test validation of heavy eSB capability to meet post-mobilization objectives and deployment time lines for MTW.

For detailed evaluation of this option, see appendix H.

#### **4. Create Middleweight Forces**

##### **a. Convert an Active component heavy division to motorized division configuration**

Mission/capability analysis indicates that forces in the middleweight category are effective across a wider portion of the mission spectrum than either heavy or light. Motorized infantry in particular appears to optimize the middleweight mission capability from benign humanitarian operations to MTW. The motorized division is both strategically and tactically mobile, filling the gap between the strategically immobile heavy division and the tactically immobile light division. Superior mobility, versatility, and flexibility are strengths that offer CINCs a unit that can get into theater quickly and accomplish a wide range of missions, including MTW, immediately upon closure. Moreover, the division is smaller than the heavy division, offering potential manpower savings, and cheaper to operate and sustain. In addition, it appears that modest investments in capabilities such as FOG-M, ground-launched Hellfire, and precision-

guided munitions could give motorized forces far more punch, and could conceivably enable them to take on heavy forces without having to close with the enemy.

This first option is a straightforward conversion of an AC heavy division to the structure and equipment of the 9th Motorized Division envisioned by the Chief of Staff of the Army in 1980, tested and evaluated for 4 years, and then approved in December 1984. The TOE approved for the 9th Motorized Division required 14,059 soldiers, compared with the current mechanized infantry division of 17,447. Using the historical division slice ratio of two to one, more than 6,000 CS and CSS spaces at corps and above could also be saved. Approximately a third of these would be AC and the remainder RC. This manpower can be applied to correct shortfalls elsewhere in the force.

Converting one heavy division to motorized configuration would make a larger proportion of the AC force suitable for a wider range of missions without significantly impacting MTW capability. Indeed, reintroduction of the motorized division could enhance MTW capability by filling the gap between closure of light forces and arrival of heavy forces with a unit capable of mobile antiarmor warfare. The five remaining AC heavy divisions—fronted by the motorized division and backed by eight ARNG heavy eSBs, the AC lighter forces, and light eSBs—appear sufficient for MTW requirements.

Converting a heavy division to motorized fills a capability gap that undermines the strategic relevance of Army forces. The unique combination of strategic and tactical mobility, coupled with increased lethality plus relevance for most SSC operations, makes the motorized division well suited for future requirements. Moreover, it saves manpower and money. The main disadvantages are the initial procurement costs for new off-the-shelf wheeled combat systems (HMMWV variants alone, or in combination with LAVs), the complexities introduced with another one-of-a-kind unit, and the slight overall degradation of MTW offensive capability.

For detailed evaluation of this option, see appendix I.

**b. Convert an Active component light division to motorized division configuration**

This option would convert an 11,681-man AC light infantry division to a 14,059-man motorized division.

Mission/capability analysis indicates that forces in the middleweight category are effective across a wider portion of the mission spectrum than are light forces, especially

at the high end. In the middleweight category, motorized infantry optimizes mission capability from humanitarian operations to MTW. In particular, the mobility and antiarmor lethality of motorized forces makes them far more versatile and effective than light units in MTW, without greatly sacrificing strategic mobility by air. Hence, converting one light division to motorized configuration would improve MTW capability without significantly impacting the proportion of the force available for SSC operations. However, the motorized division is larger and more equipment-intensive than the light division, therefore raising potential manpower, investment, and sustainment cost issues. In addition, although strategically mobile by air, the motorized division takes about 1,200 C-141B sorties to deploy, compared with roughly 550 for a light division.

Conversion would require 2,378 manpower spaces more than are in a light division. Since the motorized division is equipment-intensive, it would also require addition to the Army force structure of about 4,500 CS and CSS soldiers at corps level and above. Other costs would include procurement of off-the-shelf wheeled combat systems and vehicles (HMMWV and possibly LAV). After conversion, the motorized division would have higher operating costs than the light infantry division it would replace.

Converting a light division to motorized would fill a capability gap that currently undermines the strategic relevance of Army forces. The mobility, lethality, and versatility of the motorized division are well suited for future requirements and offer distinct advantages over the light division across a wider portion of the mission spectrum—especially for MTW. This option is costly, however, in both manpower and money and would create two one-of-a-kind units: the newly created motorized division and the sole remaining light division.

For detailed evaluation of this option, see appendix J.

**c. Convert the 2d Armored Cavalry Regiment (Light) to transitional motorized configuration**

Conceptually this is a scaled-down variation of the two preceding options. It envisions an organization about one-third the size of a motorized division but organized and equipped to create a smaller, brigade-sized package with all the advantages of middleweight units. As currently constituted, the 2d Armored Cavalry Regiment (Light) is a light armored cavalry regiment (ACR-L) with 3,812 soldiers equipped with HMMWV, towed 155mm artillery, and OH-58D helicopters. With modifications to

increase the infantry and antiarmor capability, ACR-L can be configured along the lines of the motorized division TOE while retaining its cavalry character. Two variants, one a reinforced light ACR and the other a separate motorized brigade, are outlined for purposes of illustration.

In the first variant, infantry strength would be increased by adding a reinforced combined arms battalion, light (CAB-L) of 705 men. The CAB-L includes 24 HMMWV-mounted TOW systems. Substituting 16 AH-64s for half the OH-58Ds in the aviation squadron would increase antiarmor systems further. Cavalry squadron firepower would be increased by adding one additional MK-19 40mm GMG to each scout platoon. Assuming modest increases in the regimental support squadron, this would increase strength to about 4,700.

The second variant would substitute two CAB-L for two of the cavalry squadrons and add a combined arms battalion, heavy (CAB-H) with 44 TOWs. The aviation adjustments would be the same. The separate brigade would also include a towed 155mm artillery battalion (the remaining squadron would lose its organic howitzer battery). This variant more closely resembles a traditional separate brigade, but it retains a strong cavalry component. As in the first variant, strength would be about 4,700.

The light ACR variant retains the light ACR in the force structure with added capabilities. The separate brigade variant is more fungible across the mission spectrum because of its higher infantry content. Either organization could be airlifted in about 400 C-141B sorties.

Motorized forces are highly mobile, both strategically and tactically. On a smaller scale than either of the two preceding options, a motorized light ACR or brigade would fill the gap between strategically immobile heavy forces and tactically immobile light forces. A unit smaller than a division—with superior mobility, versatility, flexibility, and antiarmor lethality that can get into theater quickly and accomplish a wide range of missions, including MTW, upon closure—would be extremely useful in a crisis. It would be ideal as a flexible deterrent option, alone or in conjunction with elements from other Services. It could deter or fight independently as a screening force while larger units deploy.

Either variant would appear to capitalize on the middleweight mission capability across the spectrum, from humanitarian operations to MTW. Either the light motorized ACR or separate motorized brigade could be effectively employed in virtually any



scenario. Moreover, either variant would be easier and cheaper to implement in the near term than converting a heavy or a light division. The base for the conversion exists in the 2d ACR-L. Either variant would retain much of the existing structure with only weapon systems improvements. The required new equipment is available off the shelf. However, modifying the existing ACR-L to broaden its mission relevance would require a manpower increase of about 900 spaces. Additionally, the second variant, converting the 2d ACR-L to a motorized separate brigade, would reduce the AC Army to a single ACR.

This option is attractive for another reason. The Army intends to experiment with advanced concepts and technology to develop a highly lethal, strategically deployable, and tactically agile unit. The envisioned unit, variously labeled a *battle force group* or a *strike force*, will be about the size of an ACR-L. It will be optimized for the full mission spectrum, deployable within days, and capable of deterring aggression. The experimental unit will be the 2d ACR-L. The time lines for this effort envision the experiment beginning in FY 2002, with implementation sometime thereafter. Thus a capabilities gap will remain well into the next decade. The option outlined here could bridge that gap by introducing much of this potential into the Army force structure now, in a transitional organization. Once fielded, it could be incrementally improved through experimentation and technology insertion. This would fill an Army capabilities void with a force that can do the job credibly while an even more capable organization is being developed.

The mobility, lethality, and versatility of the motorized ACR or brigade make it well suited for future requirements and offer distinct advantages over the current ACR-L across a wider portion of the mission spectrum—especially for MTW. The primary disadvantages of this option are the 900 additional soldiers it requires; the procurement costs for small numbers of off-the-shelf wheeled combat systems and vehicles, and possibly AH-64 helicopters; and the problems associated with one-of-a-kind AC units.

For detailed evaluation of this option, see appendix K.

## **5. Reduce Manpower and Reallocate to Higher Priorities**

### **a. Reduce composition of Active divisions, pool assets at corps level, and convert spaces**

This option would withdraw selected assets from AC divisions, pool them at corps level in lesser numbers, and convert the saved spaces to a structure suited to a broad range of missions. Candidates for withdrawal include air defense and multiple launch



rocket system (MLRS) battalions and engineer and aviation brigades, some of whose components would be retained in the Active structure. Units identified would free several thousand AC spaces, depending on the specific options chosen, to remedy existing shortfalls or allow conversion to other capabilities.

U.S. and allied air power, combined with long-range land- and sea-based air defense missiles, vastly overmatch the air forces of any country with which the United States might come into armed conflict. It therefore seems feasible to withdraw short-range air defense (SHORAD) battalions from divisions and pool them in lesser numbers at corps level. A prudent risk structure would include four AC (one per corps) and eight ARNG SHORAD battalions (two more per corps), a reduction of nine active SHORAD battalions.

MLRS is a weapon suited for MTW with little utility in smaller-scale contingencies. Six battalions are currently assigned to AC heavy divisions, and 12 non-divisional battalions are assigned at corps level. If withdrawn from divisions and pooled at corps, six AC battalions of two batteries each could be converted to four non-divisional battalions of three batteries each, eliminating two headquarters batteries.

The Army already plans to inactivate engineer brigade headquarters companies and one combat engineer battalion in each heavy division, leaving them with two combat engineer battalions apiece (light divisions have one). Combat engineers are needed in varying numbers for tasks throughout a corps, making it prudent to retain one battalion (four combat engineer companies) in each division while pooling the remainder (four battalions, each with three companies) at corps, where they can be massed for missions of highest priority. Existing ARNG combat engineer battalions could assume that mission.

All divisions have aviation brigades, although their composition varies widely. Scarce, highly capable assets are thus dissipated across the force, making them difficult to mass in support of a corps main effort. Inactivating division's aviation brigade headquarters companies and transferring all their attack helicopter (AH-64), assault helicopter (UH-60), cargo helicopter (CH-47), and aviation maintenance battalions and companies to corps would allow 10 AC division aviation brigade headquarters companies to be converted to other uses. All divisions would retain a command aviation company and two air cavalry troops that would be supported on an area basis by corps aviation maintenance battalions.

Pooling MLRS battalions, attack helicopter battalions, assault helicopter battalions and companies, and combat engineer battalions at corps level permits their massed use to satisfy the most pressing requirements or highest priorities, and assures that these assets are, as artillery has always proclaimed itself, "never in reserve." Leaving each division with dedicated assets, regardless of its mission, does not permit scarce and highly specialized capabilities to be used to maximum advantage.

For detailed evaluation of this option, see appendix L.

**b. Remove an Active component field artillery brigade, and/or aviation brigade, and/or engineer group from the corps-level force, or convert to Reserve component**

One way to correct the Army's AC operational forces over-structure problem is to reduce those forces or their combat support by the amount of the shortfall.<sup>54</sup> Preceding options have focused primarily on divisional structure and missions, and some have surfaced attractive ideas that would exacerbate the existing over-structure of about 5,000 spaces. Accordingly, identification of possible additional bill-payers is required even though some of the earlier options offer savings. This option considers the possibility of alleviating a significant portion of the Army's AC required-versus-authorized shortfall by removing corps-level brigades or the equivalent from the AC. The total AC manpower potentially derived from this option would be over 5,500 spaces.

The AC corps-level artillery structure includes six field artillery (FA) brigades and 18 battalions (12 are MLRS, three 155mm self-propelled, two 155mm towed and one 155mm towed, airborne). This AC structure is backed up by 17 ARNG FA brigades with 49 battalions (including 10 MLRS). For purposes of illustration, a notional AC brigade<sup>55</sup> with three battalions (one MLRS, one 155mm self-propelled, and one 155mm towed) would require more than 1,600 spaces. Assuming at least an equal number of CSS soldiers would be required to support this brigade, a third of whom would also be AC, an additional 530 AC spaces could be saved for a total of 2,130 if this brigade were converted to ARNG or removed from the force entirely.

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<sup>54</sup> Follow-on phases of this study will examine possible reductions in CSS, headquarters, and the institutional Army.

<sup>55</sup> This composition averages the battalion strength at just under 500 (towed, 575; SP, 492; MLRS, 423). Selection of units to be converted would be based on contingency plans.

A reduction of the AC corps artillery structure from 18 to 15 battalions does not appear to create undue risk. Each AC division would still have its own organic artillery, and the remaining AC corps structure could allocate one FA brigade to support each of the five divisions in the first MTW. This would permit activation and post-mobilization training of additional required FA brigades from the ARNG to augment the corps committed to the first MTW and to prepare for other possible contingencies, including a second MTW. The ability of the ARNG to effectively accomplish artillery tasks after relatively short post-mobilization training was proven during the Gulf War and is widely acknowledged. As increasingly lethal and accurate artillery weapons are fielded, it is also fair to ask whether fewer units could accomplish the fire support mission, especially when augmented with fires from other Services.<sup>56</sup> Mission/capability analysis indicates that the loss of these non-divisional artillery units would not impact SSC capability. Indeed, the spaces saved by reducing the over-structure shortfall could improve manning levels in the units most likely to be committed to SSC.

The AC corps-level aviation structure includes three brigades with varying mixes of flying units comprising 6 AH-64 battalions, 2 command aviation battalions, and 11 aviation companies. The remainder of the corps aviation structure, including 5 AH-64 battalions and 14 assault and support battalions is in the RC, primarily the ARNG. Given the already large concentration of corps aviation in the RC, only small reductions in the AC appear feasible. If one AH-64 regiment of two battalions, one CH-47 company, and a small maintenance increment were converted to ARNG, approximately 1,050 AC spaces would be saved.

The AC reductions envisioned are assumed in corps that would deploy to the second of two MTWs. In the case of AH-64s, two regiments of two battalions each would remain in the AC structure to support the first two deploying corps. Seven additional ARNG battalions would augment those, and/or support the two corps designated to the second MTW. Similarly, one CH-47 company would convert to ARNG. This would leave 2 AC heavy helicopter companies to support each of the first 2 deploying corps, with 11 additional ARNG heavy companies to augment or support the remaining two corps. As routinely demonstrated by the Air Force, RC aviation units can be maintained in a high

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<sup>56</sup> See John Tillson, et al., *Review of the Army Process for Determining Force Structure Requirements*, p. 25. It is puzzling that only after the Cold War ended, and with it the need to counter the large Warsaw Pact artillery forces, did the Army decide its corps artillery support to divisions facing less capable foes should increase by 50 percent.

state of readiness. Aviation is more expensive to maintain in the RC than other types of units, but less expensive than in the AC. Generally, ARNG aviation units are able to retain pilots and high-skill personnel, as well as maintain required flying and maintenance standards. Already, they are called upon, often, to augment AC units on an as-needed basis. If the converted units were collocated with AC units, near seamless integration with the AC upon activation is feasible. These conversions would have minimal impact on MTW capability and no impact on responsiveness to SSC.

The AC corps-level engineer structure includes 2 brigades, 2 groups, and 7 battalions; the RC, 2 brigades, 5 groups, and 29 battalions. Again the already large RC component of the engineer structure limits the AC units which might prudently be converted. However, if both group headquarters and three battalions (one combat heavy, one wheeled, and one combat engineer mechanized<sup>57</sup>) were removed from the AC, approximately 1,790 spaces would be saved. Assuming a proportional CSS cut, an additional 590 AC spaces could be saved for a total of about 2,380.

Heavy divisions currently have organic engineer brigades that are augmented as needed from corps, but this divisional structure may soon be reduced. This pending decision may transfer one or more battalions from division to corps. Independent of that decision, however, the corps engineer reductions outlined above would leave four AC corps-level battalions for the two engineer brigades associated with the two corps deploying to the first MTW. This AC structure would be augmented in a crisis by up to 7 RC group headquarters and 32 corps engineer battalions. Given the already robust engineer structure in divisions and the proven ability of RC engineer units to perform corps-level tasks, this should be sufficient. However, it would require that selected RC battalions be maintained at readiness levels sufficient to meet deployment schedules. Some engineer units would have to deploy well before ARNG eSBs and would require equivalent or better resourcing. Provided these readiness enhancements are feasible, these reductions would have minimal impact on MTW or SSC readiness.

This option outlines a way to address the Army's over-structure problem or to offset increases in structure required by other options. It trims AC corps-level structure at the margin without significant impact on capability for the first MTW. If the AC structure is cut, increased resourcing for selected RC units will be required to offset the

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<sup>57</sup> This composition is notional.

reductions and ensure timely availability of the replacement RC units. For detailed evaluation of this option, see appendix M.

## **H. CONCLUSIONS**

Perceived issues regarding Army force structure, readiness, and utilization of Reserve components were the impetus for this study. The study tended to confirm that imbalances exist in the Army as it is currently structured between the proportion of heavy forces the Army maintains to deter, fight, and win two MTWs and the kinds and proportion of lighter forces it needs for frequent SSC operations. The study highlighted the Army middleweight forces gap that raises strategic relevance issues since an expeditionary force requires lethal units that are both strategically and tactically mobile. The study found ways to increase utilization of RC combat units. And it identified a significant issue that previously had not been seriously addressed concerning the requirement in our defense strategy to rapidly extract forces committed to SSC when they are needed for MTW.

The study determined that the new joint system for monitoring and managing readiness appears sound. The JMRR and SROC force Service staffs to inform senior leaders of critical problem areas early so they can produce solutions.

Moreover, the Army has a system for managing readiness, is aware of temporary shortfalls (e.g. combat arms recruiting), and is taking action to fix them. Actual Army AC over-structure may be as low as 5,000 spaces, a gap potentially correctable by options presented in this paper.

The GMFP is working to ease PERSTEMPO for LDHD Army units. Based on its own reporting system, the Army does not appear to be shouldering a disproportionate share of the deployment burden when compared with other Services. Very few units are experiencing an abnormally high OPTEMPO due to repeated SSC operations. For these few units, the problem is manageable and the Army has it under control. Therefore, readiness may not be as large a problem as the study task assumed.

PERSTEMPO alone does not justify force structure changes now, and processes are in place to make changes when they do become needed. PERSTEMPO may still be more of a problem than visible information suggests, however. DEPTTEMPO and SKILLTEMPO reporting do not appear to capture the impact of repetitive overseas

deployments over a period corresponding to a soldier's term of enlistment or an officer's or senior NCO's normal assignment span.

The study objective was to identify and evaluate near-term policy, mission, and force structure changes that could make a larger portion of Army operational forces, both AC and RC, more suitable and available for a wider range of missions and/or better able to meet readiness requirements. The methodology, including mission/capability analysis and standard evaluation criteria, produced 12 options. The options address all the issues above, but do so to varying degrees. No one option is obviously superior to the others. Options offer different approaches to partial solutions to different problems. For purposes of analysis, the options were intentionally kept pure, without mixing, although several obvious combinations emerged.

The options were derived using five alternative approaches. The first approach was to explore whether some of the issues under study might best be resolved through policy changes, as distinct from force structure changes. Policy and/or mission changes appear to be the easiest and least controversial options to implement. Both temporary reconfiguration for SSC missions and creation of specialized TDA units for longer-term SSC commitments can relieve pressure on the Army as a whole. The latter is particularly attractive given the rapid extraction problem.

The second approach centered on the problem of "high demand" units that are repeatedly tasked to perform peacetime engagement and SSC operations while being apportioned at the same time in the deliberate planning process to one or more deployment plans for MTWs. The fact that every type of Army SOF unit is designated LDHD and managed under the GMFP offers proof of their value. This relatively small portion of the force is where a modest investment offers a potentially large return. Patriot units are also an LDHD asset, and while OPTEMPO is currently within the Army's "steady state" parameters, these assets are always in demand in a crisis. If necessary in the future there may be ways to leverage the investment in equipment by allocating additional manpower to existing units.

The third avenue of approach seeks more aggressive use of the RC in peacetime engagement and SSC operations, as well as in MTWs. Increased use of the RC through brigade tasking for predictable SSC missions, creation of "hybrid" divisions, or increased eSB commitment to timely availability for the second of two MTWs will improve AC division readiness. This will work provided the ARNG units so committed are resourced

to accomplish the mission. ARNG brigade tasking for SSC also could help solve the extraction problem for AC combat units.

The fourth approach focused on possible long-term corrections to the strategic and tactical mobility imbalance in the current mix of heavy and light divisions. Three options examine ways the balance might be shifted toward middleweight forces to improve the overall mix of Army capabilities for war and operations other than war. The motorization options outlined make clear the strategic advantages of recreating a motorized component of the force.

The fifth approach concentrated on ways to reallocate manpower among the Active Army, ARNG, and USAR. One option withdraws scarce, specialized capabilities from AC divisions and “pools” them at corps-level for efficiency and manpower savings and to permit greater effectiveness through massed application at critical points. A second option trims AC corps-level structure to achieve manpower savings about the size of the actual Army over-structure shortage. Both would improve readiness as a result of the manpower reallocations. The over-structure problem also could be corrected by consolidations other than in operational forces or by force structure conversions or AC-RC integration.

Clearly, as the Army continues to adjust to the post-Cold War environment it will, as it always has, cautiously change to meet emerging requirements. The AWE and AAN experiments are designed to help chart the way ahead. However, modernization requires resources, just as do current operations and readiness. Obviously, the easiest way to relieve the stress on the Army caused by these competing demands on limited resources would be to make more resources available, either by raising the overall DoD budget or by giving the Army a larger share of the existing DoD budget. But as the other Services face resource squeezes of their own and the Nation struggles to balance the budget, neither of these remedies is likely in the near term. The Army must therefore seek ways to correct some of its imbalances within current resource levels. The options examined in this paper can contribute to mapping a prudent course for the Army in the near term as it retains “the ability to conduct prompt and sustained operations on land throughout the entire spectrum of crisis.”<sup>58</sup>

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<sup>58</sup> *Army Vision 2010*, p. 1.



## I. NEXT STEPS

To facilitate exploration of specific alternatives as part of the program review, the options presented in this paper were purposely assessed one at a time against a standard set of evaluation criteria. As noted in the methodology section, however, the options developed and evaluated in this first phase of the study could be combined to produce results greater than if they were applied individually.

To provide the necessary command and control for U.S. forces in Bosnia, for example, a TDA headquarters might be established as outlined in appendix C. The TDA headquarters would obviate the need to rotate a division headquarters every 6 months, permitting greater continuity of leadership by staggering the arrivals and departures of the commander and key staff members rather than having them all depart at the same time. Forces to operate under the command and control of the TDA headquarters could continue to be provided by rotating infantry units from Active divisions, as is done now. They could also be artillery, engineer, or tank units temporarily reconfigured to perform a light or motorized infantry role, as outlined in appendix B. They could also be Army National Guard units, with their rotations managed totally by the Guard, as outlined in appendix F. Finally, the units subordinate to the TDA headquarters could themselves be TDA units, with their members drawn from a large number of MOSs in the Active Army, Guard, and Reserve, as detailed in appendix C.

In another example, one Active heavy division could be converted to motorized configuration as outlined in appendix I and, with the freed manpower spaces and savings, one Active light division could be converted to motorized configuration, as outlined in appendix J.

Another option combination that might make sense would be to increase SOF by 1,300 soldiers as outlined in appendix D and reduce most of the critical over-structure shortfall by implementing the corps-level CS reductions in appendix M.

The principal advantage of converting a heavy division to light (appendix H) is the potential AC manpower saving of over 9,400 spaces. This could be applied to eliminate the critical over-structure shortfall of 5,000 and provide the additional manpower (900 spaces) needed to convert the 2d ACR-L to a motorized brigade (appendix K). It would also provide a portion of the additional manpower (4,700 spaces) needed to create a second motorized brigade, thus doubling the middleweight capability in the AC



force structure. This would not only increase flexibility but would also reduce somewhat the reliance on eSBs, resulting from the reduction in heavy divisions, for the second MTW.

Implementing the hybrid division structure (appendix G) would produce AC manpower savings of over 4,400 spaces. This could be used to partially reduce over-structure and to implement options with small manpower costs, such as increasing SOF capability by 1,300 spaces (appendix D), increasing the number of Patriot missile units (appendix E), or converting the 2d ACR-L to transitional motorized configuration (appendix K).

A plausible variation of appendix I would be to convert one heavy division to a mix of one heavy brigade and two motorized brigades (from appendix K) to give the division greater strategic mobility, greater relevance to SSC operations, lower cost, and lower support structure requirements. Similarly light divisions could gain mobility and lethality by converting to a mixed structure of two light brigades and one motorized (a combination of J and K).

Yet another might be to pool the majority of the 101st Air Assault and 82d Airborne Divisions' aviation resources at corps level (drawing on the concept outlined in appendix L) and convert the Army's single airmobile and airborne divisions to identical structures, each with two airborne/airmobile brigades and one motorized brigade (appendix K). This would improve fungibility of aviation units and give each division greater mission flexibility, greater tactical mobility and lethality, and greater relevance to MTW. Additionally, it would contribute to standardization since both divisions are currently one-of-a-kind units. This model could be extended to light divisions as well.

Other combinations are also possible, but any combination needs to be carefully evaluated, first against the same criteria used to develop the "pure" options presented here and then more rigorously, using available simulations and models to more accurately determine cost and performance.

The findings of this first phase of the study suggest that future efforts should examine the remainder of the Army's operational forces (CS and CSS) as well as the operational headquarters and the institutional Army.

## **Appendix A**

### **TOTAL ARMY ANALYSIS 2005 (TAA-05) COMBAT FORCES**

This appendix depicts the Army combat force structure used to conduct TAA-05—the same structure used as a baseline for options discussed in this paper. The illustrations are as follows:

- A-1 – Mechanized Infantry Division
- A-2 – Armor Division
- A-3 – Light Infantry Division
- A-4 – Airborne Division
- A-5 – Air Assault Division
- A-6 – Heavy Armored Cavalry Regiment
- A-7 – Light Armored Cavalry Regiment
- A-8 – Corps Artillery
- A-9 – Corps Aviation Brigade

More detail on unit strength figures used in the analysis is available from the authors.



DAMO-FDF

# Mechanized Infantry Division

17,447 soldiers

## DIVISION TROOPS

 HHC 87004A200 275 soldiers	 MP 19333L000 160 soldiers
 MI 34395A000 406 soldiers	 RAOC 87103L000 22 soldiers filled by RC
 BAND 12113L000 41 soldiers	 RAOC 87103L000 22 soldiers filled by RC

## MANEUVER

 87042L200 80 soldiers 1x2	 17375L000 609 soldiers	 07245L200 774 soldiers	 07245L200 774 soldiers
 87042L100 80 soldiers 2x1	 17375L000 609 soldiers	 17375L000 609 soldiers	 07245L200 774 soldiers
 87042L200 80 soldiers 1x2	 17375L000 609 soldiers	 07245L200 774 soldiers	 07245L200 774 soldiers

AR Bns: 58 M1 tanks / Bn  
INF Bns: 58 BFVs / Bn

## DIVARTY

 06302L000 183 soldiers	 06365A400 646 soldiers 2x1	 06365A500 671 soldiers 1x2	 06365A500 671 soldiers 1x2
 06303L000 79 soldiers	 06398L000 125 soldiers	 06395A000 411 soldiers	 06385A200 538 soldiers
 06302L000 214 soldiers	 063135A000 932 soldiers	 063005L100 434 soldiers 2x1	 063005L300 429 soldiers 1x2

All SP Bns  
3x6 by 98  
18 guns / Bn

## DISCOM

 06302L000 214 soldiers	 063135A000 932 soldiers	 063005L100 434 soldiers 2x1	 063005L300 429 soldiers 1x2
 063005L100 434 soldiers 2x1	 063005L300 429 soldiers 1x2	 063005L300 429 soldiers 1x2	 063005L300 429 soldiers 1x2

## AVIATION

 01302A000 90 soldiers	 01385A200 322 soldiers AH-64(Longbow)	 01305A000 331 soldiers	 01385A200 322 soldiers AH-64(longbow) RC or not filled
 01385A200 322 soldiers AH-64(Longbow)	 01305A000 331 soldiers	 01385A200 322 soldiers AH-64(longbow) RC or not filled	 01385A200 322 soldiers AH-64(longbow) RC or not filled

## DIVENG

 05332L000 57 soldiers	 05335L000 444 soldiers	 05335L000 444 soldiers	 05335L000 444 soldiers
 05332L000 57 soldiers	 05335L000 444 soldiers	 05335L000 444 soldiers	 05335L000 444 soldiers

Unclassified

DAMO-FDF

Figure A-1

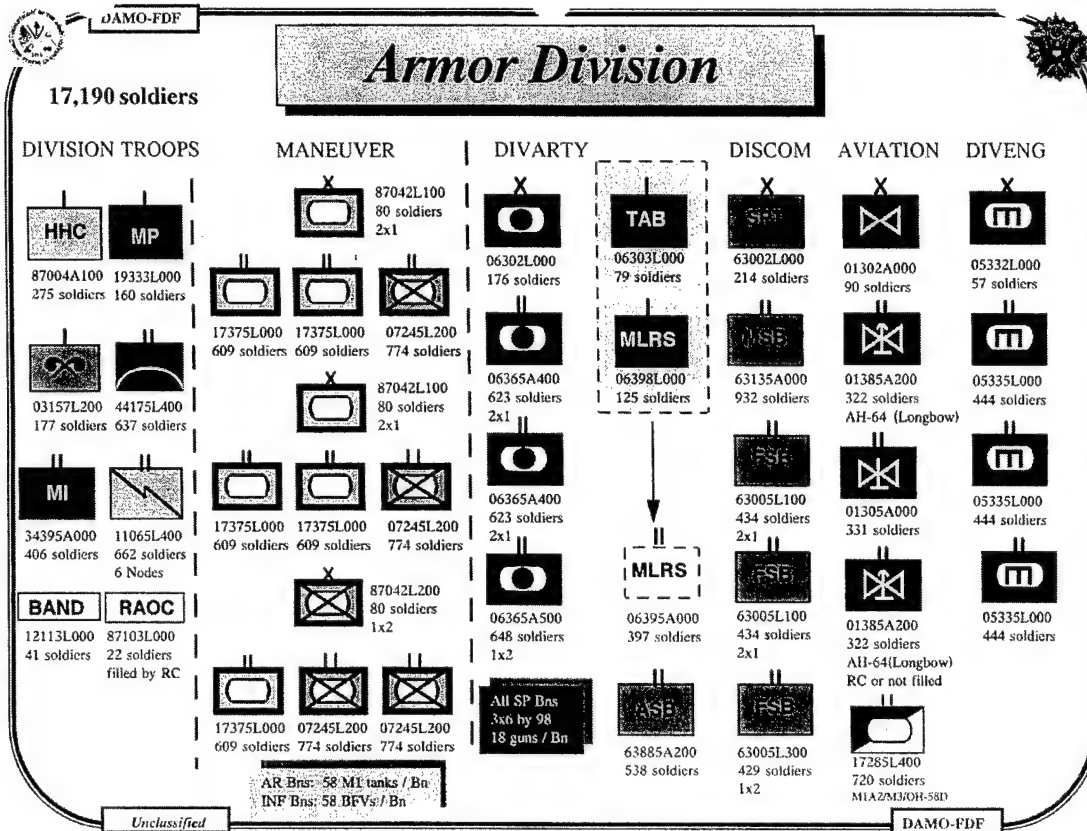
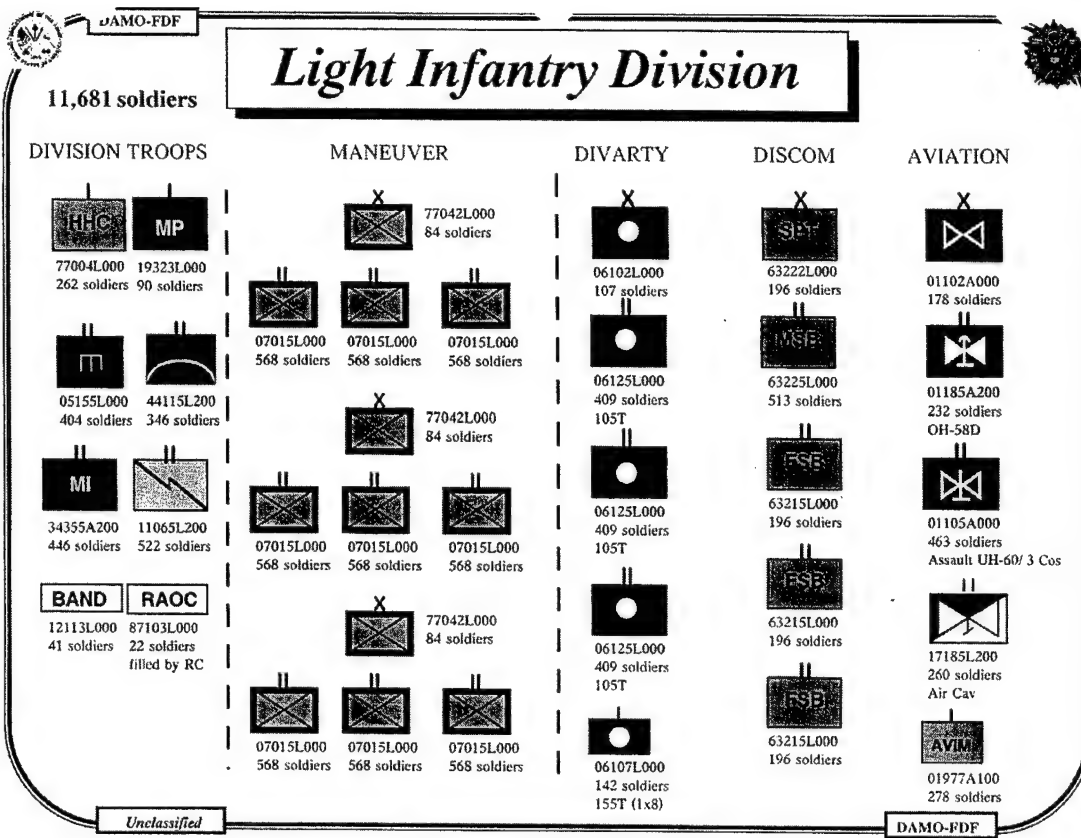


Figure A-2



**Figure A-3**



DAMO-FDF

# Airborne Division

13,435 soldiers

## DIVISION TROOPS

57004L000  
229 soldiers19313L000  
111 soldiers05025L000  
425 soldiers44135L300  
470 soldiers34355A100  
446 soldiers11065L300  
519 soldiers12113L000  
41 soldiers87103L000  
22 soldiers  
filled by RC03057L000  
124 soldiers

## MANEUVER

57042L000  
73 soldiers07035L000  
671 soldiers07035L000  
671 soldiers07035L000  
671 soldiers57042L000  
73 soldiers07035L000  
671 soldiers07035L000  
671 soldiers07035L000  
671 soldiers57042L000  
73 soldiers07035L000  
671 soldiers07035L000  
671 soldiers07035L000  
671 soldiers

## DIVARTY

06202L000  
111 soldiers06205L000  
437 soldiers  
105T06205L000  
437 soldiers  
105T06205L000  
437 soldiers  
105T

## DISCOM

63252L000  
202 soldiers63265L000  
980 soldiers63255L000  
236 soldiers63255L000  
236 soldiers63255L000  
236 soldiers

## AVIATION

01042A000  
158 soldiers01085A200  
231 soldiers  
OH-58D01045A000  
463 soldiers  
Assault UH-60/3 Cos01065A000  
314 soldiers  
Air Cav01953A000  
312 soldiers

Unclassified

DAMO-FDF

Figure A-4

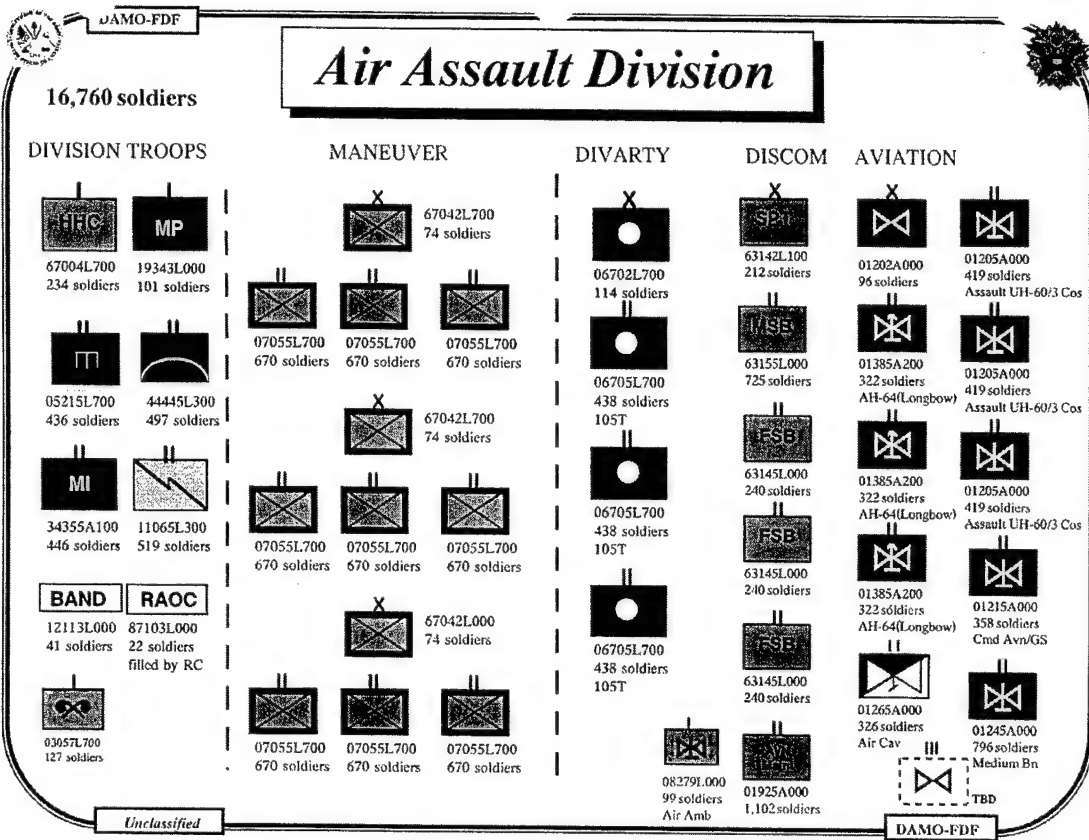


Figure A-5

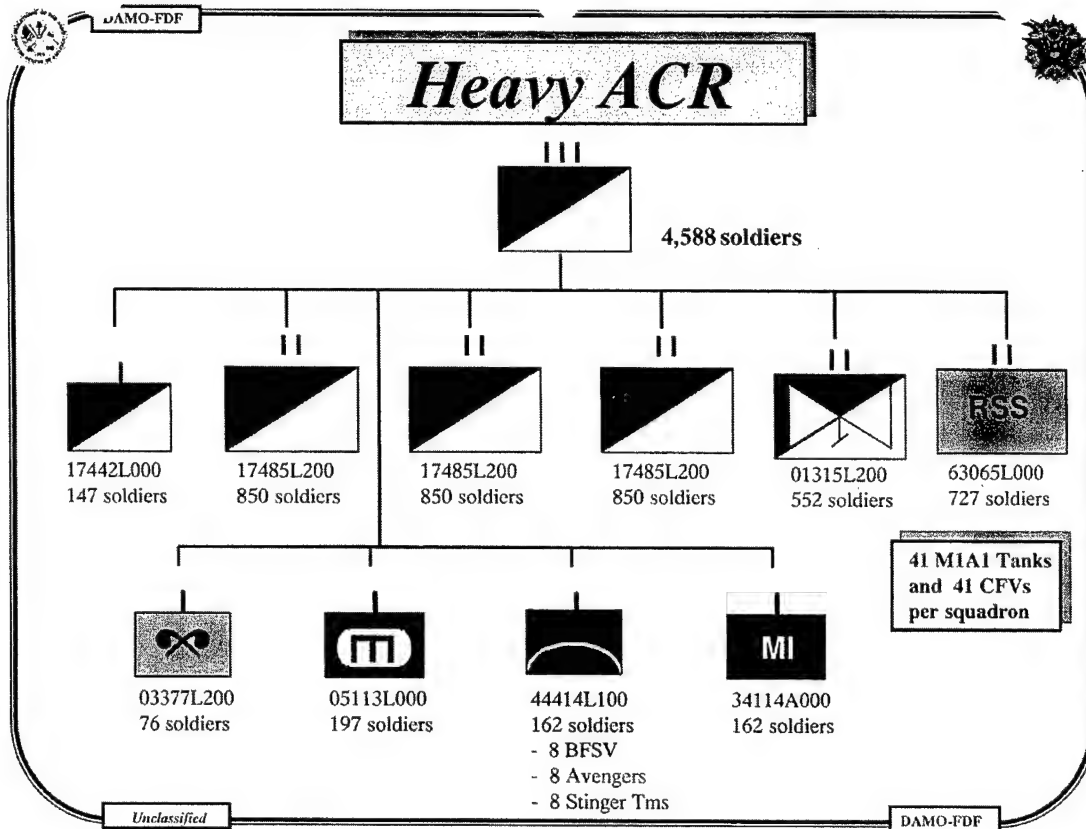


Figure A-6



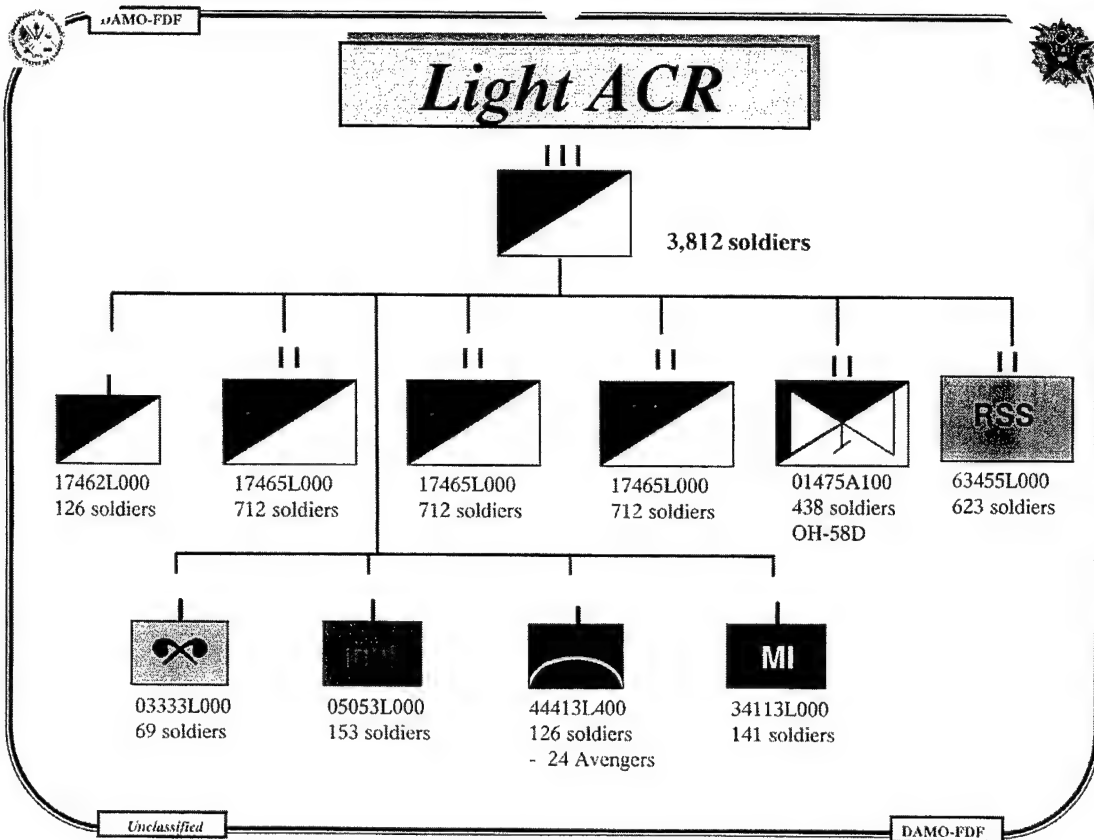


Figure A-7

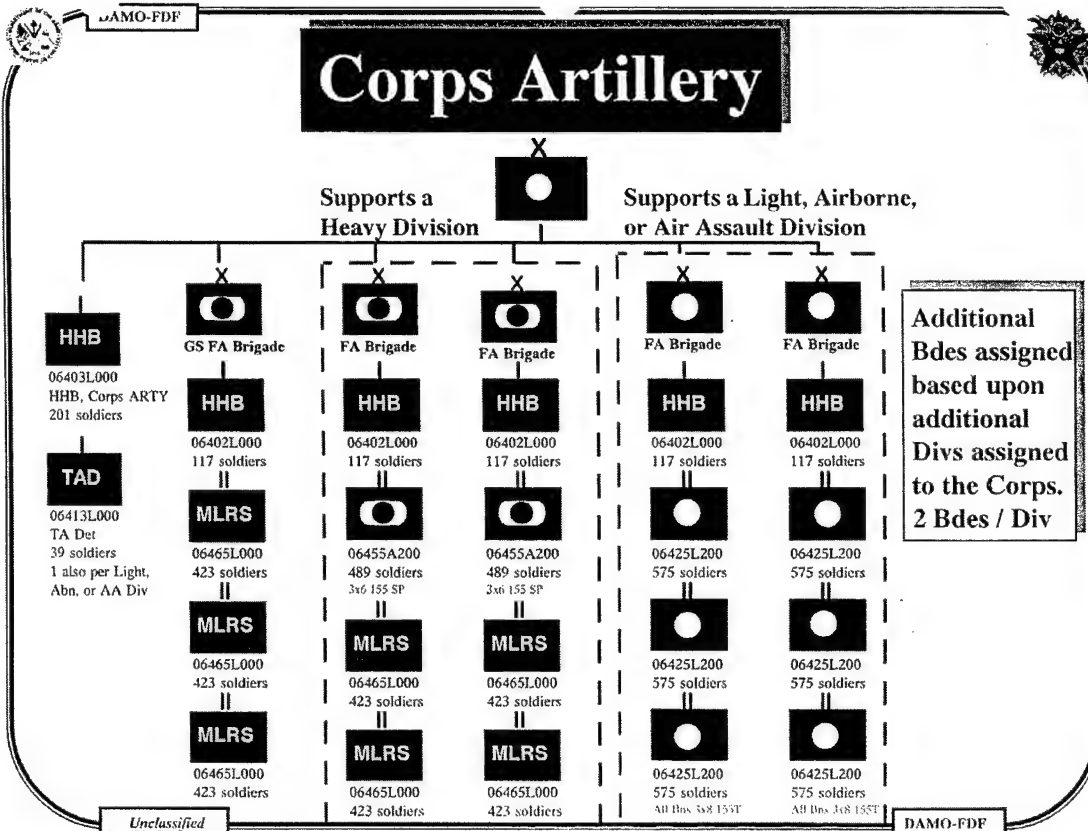


Figure A-8

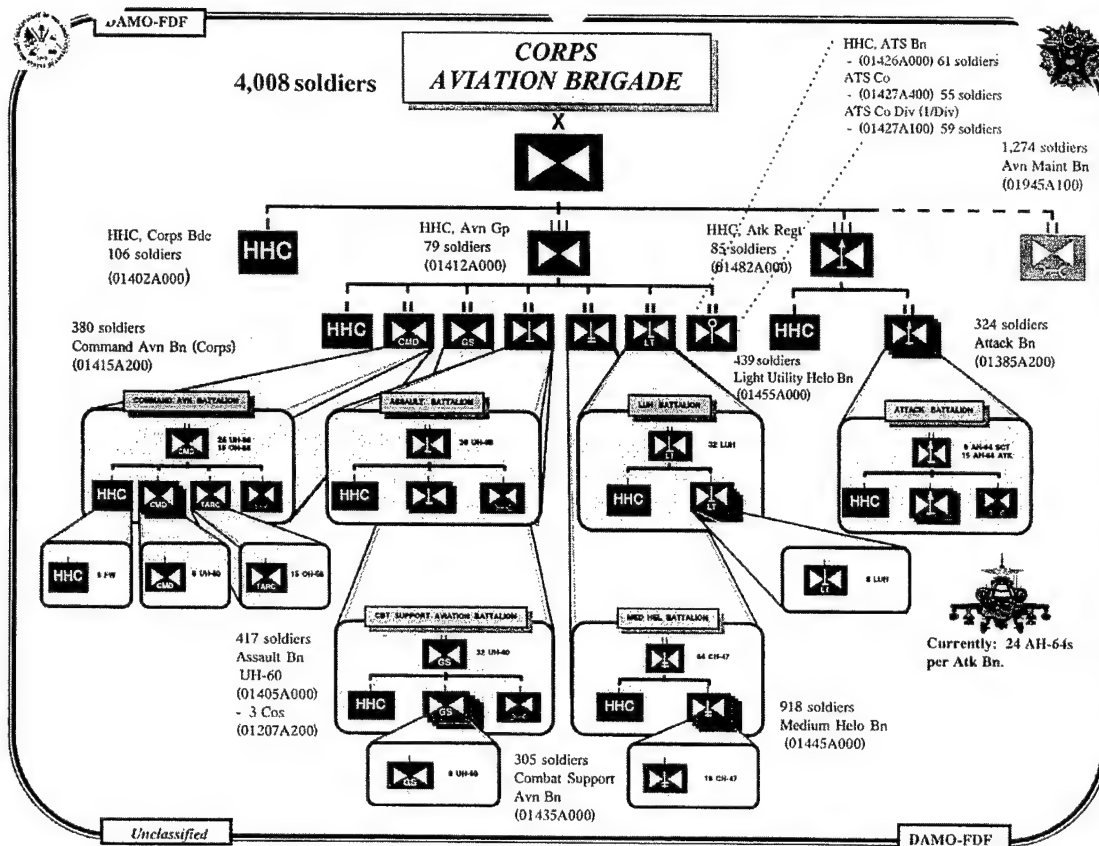


Figure A-9

## **Appendix B**

### **RE-ROLE MECHANIZED INFANTRY AND NON-INFANTRY UNITS**

#### **DESCRIPTION**

One proven way to alleviate disproportionately high personnel tempo among the lighter portions of the force that are most in demand for operations other than war is to "re-role" later deploying heavy units to perform infantry type tasks. Mechanized infantry and heavy and light non-infantry units could be temporarily reconfigured to perform a light or motorized infantry role in smaller-scale contingencies.

The term "capability" has been defined as "the ability of a properly organized, trained, and equipped force to accomplish a particular mission or function."<sup>1</sup> A capability for a particular mission is a specific combination of organization, training, and equipment. Mechanized infantry, armor, engineer, field artillery, and air defense artillery battalions are organized, trained, and equipped to provide specific capabilities, all optimized for major theater war. Fundamentally, however, all combat and combat support units consist of disciplined manpower with built-in command and control, built-in capabilities for self-support, and some built-in means of tactical mobility. With some reconfiguration, appropriate additional training, and perhaps a different set of mission-specific equipment, these units could be tasked to perform missions of the sort that currently fall upon a narrow segment of the total force, in effect spreading the workload across a larger population.

The British Army has long turned to artillery, engineer, and armor units for peacekeeping duties in Northern Ireland, Cyprus, and elsewhere (Annex B-1). The U.S. Army has itself, in the past, required combat and combat support units to train for non-traditional missions such as control of civil disturbances during the 1960s.<sup>2</sup> Such

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<sup>1</sup> John P. White et al., *Directions for Defense*, the Report of the Commission on Roles and Missions of the Armed Forces, May 1995, p. 1-1.

<sup>2</sup> Jean R. Moenk, *USCONARC Participation in the Suppression of Civil Disturbances April 1968*, pp. 27-29.

diversion of units from training and readiness for the missions they were designed to perform is typically planned well in advance. That is, policy makers weigh the risks and make conscious decisions to employ units in missions other than those for which they were specifically organized, trained, and equipped.

There have also been occasions where totally unexpected requirements have thrust Army forces into missions never contemplated in their design, such as when field artillery units from Fort Sill, Oklahoma, were airlifted to Fort Chaffee, Arkansas, to help restore and maintain order among Cuban refugees interned there. In a 6-month period, 13 field artillery cannon and missile battalions from Fort Sill were rotated to perform this mission.<sup>3</sup> More recently, the Army has tasked non-infantry units on short notice to assist civil authorities in fighting fires.

This option does not contemplate no-notice or short-notice taskings to satisfy the requirements of a “come-as-you-are” crisis that suddenly develops; infantry is still the capability of choice for the initial foray into a trouble spot such as Somalia or Bosnia. What this option does suggest is that the United States consider emulating our British allies by tasking heavy and non-infantry units for *predictable, temporary assignment, where appropriate, to scheduled rotations in smaller-scale contingency and peacetime engagement operations*.

## **RATIONALE**

The Quadrennial Defense Review (QDR) noted that smaller-scale contingency operations will likely pose the most frequent challenge for U.S. forces through 2015 and that, over time, substantial commitments to multiple concurrent smaller-scale contingency operations will certainly stress U.S. forces in ways that must be carefully managed.

In recent years the Army has deployed combat forces into Somalia, Haiti, and Bosnia in immediate response to crises, and subsequently has rotated other combat units to relieve the initial deploying force and maintain U.S. presence on the ground. Sometimes, commitments are short lived, but in other cases they become almost permanent. The United Nations peacekeeping mission on Cyprus began in 1964. The British Army’s practice of rotating forces to 6-month tours in Northern Ireland dates to 1969. And our commitment to provide a reinforced infantry battalion to the Multinational

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<sup>3</sup> Department of Defense, *Task Force Resettlement Operation After Action Report*, p. I-IV-B-1.

Force and Observers Mission, Sinai (MFO-Sinai) dates to 1982. In addition to what increasingly looks to be a long-term commitment in Bosnia, the Army maintains a reinforced infantry battalion in Macedonia, and a possibility exists that U.S. forces will be called upon to help administer a peace agreement in the Golan Heights between Israel and Syria.

The QDR found that U.S. forces must also be able to withdraw from smaller-scale contingency operations, reconstitute, and then deploy to a major theater war in accordance with required timelines. The ability to transition between peacetime operations and warfighting therefore remains a fundamental requirement for virtually every unit in the U.S. military.<sup>4</sup> Individual conventional units must be proficient in their core warfighting competencies and able to transition from peacetime activities and operations to enhanced deterrence in crises, to war.<sup>5</sup>

The QDR found further that U.S. forces must be organized, trained, equipped, and *managed* with multiple missions in mind.<sup>6</sup> This option represents a way to *manage* Army forces so as to spread peacetime deployment missions across a wider portion of the force.

Because of the speed with which light forces can be deployed from bases in the continental United States (CONUS), light infantry is frequently the capability of choice in smaller-scale contingency operations. The 10th Mountain Division, for example, was selected for deployment to Somalia, in the U.S. Central Command area of responsibility, and the 82d Airborne and 10th Mountain Division were selected for deployment to Haiti, in the U.S. Atlantic Command area. Light forces are few in number, however, so when the time came in Haiti to relieve the 10th Mountain Division in place, elements of the 25th Infantry Division assigned to the U.S. Pacific Command had to be deployed from Hawaii.

Given the capabilities of the warring factions, which represented potential threats, a heavy force (armor and mechanized infantry) was required for the NATO Implementation Force (IFOR) that deployed to Bosnia to implement the Dayton Peace Agreement. As heavy weapons were brought under control, it became possible (and for a number of reasons, not least of which was cost, it also became desirable) to employ lighter forces in Bosnia. Consequently, the 2d Armored Cavalry Regiment (Light)

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<sup>4</sup> William Cohen, *Report of the Quadrennial Defense Review*, May 1997, pp. 11-12.

<sup>5</sup> *Ibid.*, p. 16.

<sup>6</sup> *Ibid.*, p. 12, *italics added for emphasis*.

(2d ACR-L) was deployed from Louisiana to fulfill the U.S. commitment to NATO's follow-on Stabilization Force (SFOR). More recently, the 1st Cavalry Division, at Fort Hood, Texas, was selected to relieve the 2d ACR-L. Whether the 1st Cavalry contingent will deploy with its Bradley Fighting Vehicles and tanks remains to be seen. Using heavy forces to replace a light force that has successfully accomplished the mission makes no sense and would be expensive. The logical solution would be for the 1st Cav's battalions to reconfigure into something lighter, resembling the 2d ACR-L (although some heavy capability may continue to be required as part of a reaction force).

Our analysis makes the reasonable assumption that forces stationed in Korea and forces that are part of the early-deploying XVIII Airborne Corps should remain available for a major theater war or for rapid deployment to as-yet unforeseen, come-as-you-are smaller-scale contingencies. Even so, our analysis (Annex B-2) shows this option could increase the number of active army battalions and squadrons available for rotational deployment to smaller-scale contingencies from a realistic total of 18 light infantry battalions to as many as 146. It is important to note, however, that mechanized infantry and tank battalions, armored cavalry squadrons, divisional artillery, engineer, and air defense artillery battalions, and non-divisional artillery and engineer battalions differ significantly in size. They all cannot be reconfigured in the same way, but they all can be reconfigured. In keeping with the defense strategy spelled out in the QDR, *temporarily* reconfiguring these additional units is one way to meet the requirements of missions at the lower end of the conflict spectrum.

## **EVALUATION**

*Major Theater War Capability.* A policy of "re-rolling" mechanized infantry and non-infantry units to perform light and motorized infantry-type missions entails some risk. While performing such non-traditional missions, and for some period beforehand, the units are unable to train for the high-end combat missions they were designed to perform. And they need some period of re-training afterward to regain the required proficiency in their primary, design mission. There are, however, some training benefits to such a policy, such as familiarization of troops and leaders with new operational areas; familiarization with overseas deployment, especially reception, staging, onward movement, and integration (RSOI) procedures; heightened awareness among officers of contemporary strategic challenges; and leadership training for junior officers and NCOs.

The defense strategy spelled out in the QDR says that any unit selected for rotation to the Sinai, Macedonia, Bosnia or some other crisis spot must be able to withdraw, reconstitute, and deploy to a major theater war in accordance with required timelines. The ability of a unit to meet this requirement depends on the extent to which its collective skill in its primary mission decays while it is committed to a smaller-scale contingency (SSC), the length of time required to regain primary mission proficiency, and the timeline it must meet in the event of a major theater war. A light infantry unit's skills will probably decay less than those of a mechanized infantry, armor, armored cavalry, artillery, engineer, or air defense artillery unit during peacekeeping or other SSC operations. Thus, a light infantry unit will require less time to regain full proficiency for its major theater warfare mission. Light infantry units are in high demand for "come-as-you-are" SSCs, however, and therefore have among the shortest timelines for redeployment.

If the unit committed to an SSC or peacetime engagement mission is from a later-deploying division or is a non-divisional unit, and its selection is carefully managed as the QDR says it should be, then presumably it will be a unit whose availability date for a major theater war is later than that of other units that could be tasked. In the British experience, artillery and engineer units are given 3 months to regain their primary mission proficiency after completing a 6-month "roulement" tour in Cyprus or Northern Ireland. This is a routine peacetime standard for scheduled redeployments and includes time for returning soldiers to take leave and see their families. It is not unreasonable to speculate that full mission proficiency could be regained in a much shorter period during a crisis that might lead to a major theater war. Moreover, the 3-month refresher training period included in British Army plans comes after the unit has stood down from its primary mission for 9 months—3 months to train for peacekeeping and 6 months in Cyprus or Northern Ireland. If a crisis were of sufficient gravity to cause units to be withdrawn from a smaller scale contingency, presumably the time spent on station would be less than a full 6 months and the decay in primary mission skills would be correspondingly less.

*Flexibility/Fungibility.* Including mechanized infantry, armor, armored cavalry, artillery, engineer, and air defense artillery units in the pool from which units are drawn for commitment to smaller-scale contingencies would make more existing AC units useful across a broader mission range.

*Tailorability/Modularity.* Non-infantry units tasked to perform missions on the lower end of the conflict spectrum would have to be reconfigured to some degree, and



could be precisely tailored to meet the specific demands of an assigned tactical mission and area of responsibility—as are British Army units.

*Mobility, Strategic and Tactical.* If the British model were adopted and units were rotated to an equipment set in theater, the only strategic lift required would be for the movement of people. The tactical mobility of the forces assigned to rotational duties in SSCs and peacetime engagement missions could be precisely tailored to the demands of the mission they would perform and the terrain over which they would operate.

*Capability vs. Asymmetrical Threats.* This option is essentially neutral with respect to the ability of forces involved to operate in an NBC environment or to defend against hostile information operations. Light infantry-type forces are better suited than a heavy force for urban operations.

*Command and Control.* Divisional combat forces and both divisional and non-divisional combat support forces are organized into brigades and groups whose headquarters elements could provide command and control in smaller scale contingencies equivalent to that provided by a maneuver brigade headquarters.

*Joint/Combined Operations.* Temporarily reconfiguring combat and combat support units to take on a light infantry role and deploying them to missions such as MFO-Sinai and the NATO SFOR in Bosnia would expose a greater number of officers and soldiers to allied and coalition operations than would sending light infantry units back to the same missions repeatedly.

*Readiness.* Any unit committed to an SSC or peacetime engagement mission will suffer some degradation in its readiness for major theater warfare, if only because of the additional time it would take the unit to reconstitute before deploying. Conversely, though, any unit that is *not* committed to an SSC will maintain a higher degree of readiness for major theater war. Careful management of the mechanized infantry, armor, armored cavalry, artillery, engineer, and air defense artillery units selected for temporary re-rolling would be necessary to prevent degradation in the overall readiness of a major theater war force package.

*PERSTEMPO.* This option would spread the burden of SSCs and peacetime engagement missions across a much wider base. It would permit the soldiers and leaders of non-divisional units to gain experience they might otherwise never receive, and it would reduce the frequency with which light infantry soldiers and leaders would have to deploy away from their home stations.

*Cost.* The most significant costs of this option would be for equipment sets to be used by the rotating force in theater and in pre-deployment training. The one-time acquisition cost for the equipment in a light infantry brigade of the same size as the 2d ACR-L is up to \$152 million. However, many if not most of the required items are likely to already be in Army inventory stocks, free from procurement costs. In addition, depending on the mission, commercial off-the-shelf (COTS) equipment may be suitable, and for multinational operations the cost of COTS items may be borne by nations that for one reason or another cannot or choose not to contribute troops.

The cost of transporting a brigade- or regiment-sized unit's equipment to Bosnia (for example) is roughly \$6.5 million; moving the personnel costs between \$3 and \$4 million. The recurring cost of transporting entire units, with their organic equipment sets, to and from the theater of operation may prove greater than the one-time procurement costs of additional equipment sets. In addition, the organic equipment of units designed for major theater war may prove to be less than ideal for SSC operations.

*AC Manpower.* This option would simply make use of existing Active component manpower in a different way. No manpower savings are anticipated.

*Capital Equipment.* If this option were adopted, an additional set of equipment would be required in the theater of each long-duration SSC and/or peacetime engagement mission, and at least a partial set would be required at the site where rotating units would go for their pre-deployment training. Required vehicles and equipment could be taken out of prepositioned stocks. They could also be made available by drawing down non-deployable headquarters, replacing their tactical vehicles with leased commercial vehicles. Or leased vehicles could be used by the re-roled unit itself. For some items, such as communications equipment, additional procurement may be required.

*Utilization of RC.* As presented here, this option does not improve Reserve component integration. If this option were adopted, however, Army National Guard combat support units, both divisional and non-divisional, could participate in the Guard-managed unit rotations envisioned in appendix F.

*Implementation Timeframe.* This option could be implemented quickly. In the case of Bosnia, the 2d ACR-L is being relieved by the 1st Cavalry Division headquarters and one brigade, the battalions of which may in effect be re-roled by mounting them in wheeled vehicles rather than tracks. Subsequent relief by re-roled divisional or non-divisional combat support units could begin as early as the "rotation after next." Forces

that would be temporarily reconfigured for Bosnia, Macedonia, or the Sinai exist now and could begin planning and training for the light infantry role as soon as they are notified of a commitment to do so. It is a matter of simply reorganizing, training, and equipping them for the specific missions they are to perform.

*Complexity.* This option is essentially simple to execute but would require careful management. The first step would be to design the structure required for a particular mission—the structure into which a rotating unit would have to temporarily reconfigure. Ideally, the schedule of units to rotate to Bosnia, Macedonia, the Sinai, and other long-duration missions should be published 2 or 3 years in advance to allow tasked units maximum flexibility in planning their primary mission training around their temporary reconfiguration for a light or motorized infantry-type role. Once the structure is set, the necessary equipment is rounded up, and a schedule of rotations is determined, it becomes a matter of executing the plan—something Army units do routinely and do well.

## **SUMMARY/CONCLUSIONS**

The Title 10 responsibilities of the Army are to "organize, train, and equip" forces to perform missions. Under this option, existing units that are organized for one mission would be temporarily reorganized to perform in smaller-scale contingencies, trained in tasks essential to the mission, and equipped as appropriate to perform those tasks. Following completion of the mission, the units would be reorganized, trained, and equipped with their original equipment to perform the mission for which they were originally designed.

## **Annex B-1**

### **THE BRITISH EXPERIENCE<sup>1</sup>**

Since 1969, when "The Troubles" began, the British Army has frequently and sometimes routinely re-roled artillery regiments (battalions in U.S. terms) and other non-infantry units to rotational duties in Northern Ireland. According to one account, published in 1985:

Gunners have been used in the infantry role in many of Britain's post-war campaigns, but never to the same extent as in Ulster. For the past 15 years Gunner regiments have put their guns 'into mothballs' and trained hard to learn the different skills of the infantryman. This has been necessary because there are simply not enough infantry to take on the Northern Ireland problem single-handed as well as meet the many other responsibilities of the infantry worldwide: the maintenance of 13 infantry battalions in the British Army of the Rhine (BAOR); of the Hong Kong, Cyprus, Gibraltar, Belize, Brunei and Falkland garrisons (totalling 8 battalions); of the UK contribution to the Allied Command Europe (ACE) Mobile Force to the NATO flanks in Norway in the North or to Greece and Turkey in the South; of the United Kingdom Mobile Force (Land) assigned to reinforce Denmark; of the 5 Infantry Brigade (the Strategic Reserve ready to go anywhere in the world at a moment's notice); of the UK's UN contribution in Cyprus, and the maintenance of the Spearhead battalion kept permanently at 24 hours' or less notice to react to an emergency anywhere in the world, and finally the maintenance of sufficient battalions to defend the United Kingdom. In these circumstances the Royal Artillery and, indeed, the Royal Armoured Corps and Royal Engineers had to become 'instant infantrymen' in Ulster.<sup>2</sup>

Improvements in the security situation later allowed the infantry to undertake infantry tasks in Northern Ireland unaided; however, artillery and tank units continued to help guard the Maze Prison. The British Army, like ours, has since gone through a post-

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<sup>1</sup> This account of the British experience is based on a telephone interview and follow-up e-mail exchanges with Lieutenant Colonel Mike Healey, British Liaison Officer to the U.S. Army Field Artillery School, and Colonel Richard Cousens, British Liaison Officer to the U.S. Army Training and Doctrine Command. In addition, we consulted several references they suggested, which are cited separately and listed in the Appendix O, Bibliography.

<sup>2</sup> Lt Col Michael Dewar, *The British Army in Northern Ireland*, p. 92.

Cold War drawdown, and today British artillery regiments routinely “down tools” and leave their guns behind while they deploy to Northern Ireland and Cyprus, with the latter “almost exclusively a Gunner task.”<sup>3</sup>

The British Army in Northern Ireland consists of permanently stationed headquarters and support elements, and both long- and short-term rotating units. Headquarters Northern Ireland is a joint headquarters, commanded by a lieutenant general who reports to the Ministry of Defence and the Secretary of State for Northern Ireland. Commander Land Forces, a major general, has under his command three brigades, each with an assigned tactical area of operational responsibility (TAOR). The frontline units that actually patrol the streets of the province may be either “resident” or “roulement.” There are six resident units in Northern Ireland, posted there for 2 years at a time. They take their families and live a relatively normal life at a softer tempo than the 6-month roulement units. The four companies in resident units typically rotate monthly between: Operations, Training, Guards and Duties, and Leave. A resident unit is able to address the long-term education of its officers and NCOs, who attend professional military education courses as usual. For an emergency roulement unit, all such individual training courses stop and, apart from one 7-day Rest and Recuperation (R&R), there is no leave for the 6 months they are deployed, and weekends are not observed. Everyone works about an 18-hour day at a fairly relentless tempo. The rotation plan (“Emergency Tour Plot”) is published well in advance in the Land Command Plan, allowing the chain of command and individual soldiers ample time to plan and prepare for deployment.

Approximately 6 months before the scheduled departure date of a roulement unit, a small party consisting of the battalion commander and perhaps two others make a “pre-reconnaissance” to get the lay of the land and sharpen the planning guidance they must issue to subordinate units. A full reconnaissance, with company commanders and a logistics team, is conducted 4 months prior to deployment. Before their deployment to Northern Ireland, infantry battalions go through 2 months of preparatory training; artillery and armored regiments temporarily re-roled for the mission must train at least 3 months. The training course is run by the Security Operations Training and Advisory Team (SOTAT) at a special training area in England. Prior to commencing their mission training, units reconfigure to a prescribed organizational structure. The basic unit

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<sup>3</sup> Interview with Lt Col Mike Healey.

structure for Northern Ireland is four companies of three platoons each, but the specific structure is tailored to the size and particular demands of the TAOR assigned to the unit.

Rotating units take none of their major equipment with them; the vehicles, riot control weapons and protective gear, and specialized communications equipment required for the assigned TAOR are provided upon the unit's arrival in Northern Ireland. A "training pack" of equipment, enough for a battalion, is provided at the training site run by SOTAT. It is vital that units train on the same equipment they will use in Northern Ireland, even though the nature of the equipment changes quickly to counter the latest terrorist threat. The military vehicles are all variants of standard-issue vehicles such as Saxons or Landrovers, so pre-deployment training needs only to focus on the differences and does not need to start from scratch. Unit mechanics move with the unit to perform organizational maintenance; back-up is provided by a direct support shop in Belfast.

Several weeks before deployment, the unit Intelligence Officer deploys to begin assimilating the knowledge accumulated by the Intelligence Officer of the unit being relieved. Some weeks before movement of the main body, an advance party, consisting of the commanding officer, company commanders, and platoon and section commanders, deploys. These leaders spend days on the ground with patrols from the battalion they are relieving. Thus, by the time the battalion's second-in-command, the company seconds-in-command and the platoon sergeants bring over the bulk of the troops, the commanders have become familiar with their TAOR.

This system of relief took the British Army some years to develop, but in one author's view it has long since been refined to a drill:

In the early years training was haphazard. For a start, few were absolutely certain what to train for. Now there is a well-oiled training machine, which puts every battalion through a standard Northern Ireland training package, including intensive patrolling, either urban or rural depending upon battalion location, riot-control techniques, shooting at fleeting targets, first aid, powers of and procedures for arrest, orders for opening fire, IRA bomb and weapon recognition and capabilities, IRA techniques, capabilities and organization as well as training in the use of various items of internal security equipment.<sup>4</sup>

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<sup>4</sup> Dewar op. cit., p. 181.

Using non-infantry units in a traditionally infantry role has benefits, especially in the development of junior leaders, but it also has its costs:

The Ulster Emergency has done wonders for junior NCO leadership ability in the British Army. The young corporals and lance-corporals are put in charge of a 'brick' (a 4-man patrol) on the streets<sup>5</sup> and are not only responsible for their own brick, but may be called upon to take difficult decisions in demanding circumstances. The middle management of the Army, the Majors commanding Companies, have also been tested. They have been responsible for literally running large areas of Belfast, and for deploying their Companies of approximately 100 men over a large area to keep the peace. Perhaps Battalion and Platoon Commanders have had fewer demands put upon them in the peculiar circumstances of Ulster; in a conventional warfare it is they who would be the more severely tested. Consequently, it has not been possible to apply many of the lessons learned in Ulster to the Army's main purpose in life—the defence of Europe as a partner in NATO against Warsaw Pact aggression. Serving in Ulster does, however, prevent battalions from getting stale and enhances standards of leadership. Naturally, incorrect procedures can be learned in the Emergency conditions, and much time is spent 'unlearning' many of the techniques of urban internal security operations on return to BAOR.<sup>6</sup>

Implicit in the above passage is what may be the greatest cost of this practice—its effect on the tasked unit's readiness to perform the "high end" major theater warfare mission it was organized, trained, and equipped to perform. Whether that effect is the same for all units or differs by unit type is not clear. All told, artillery units used in the peacekeeping role are out of action as artillery units for 12 months—3 months to prepare for the non-standard mission, 6 months on rotation in Cyprus or Northern Ireland, and 3 months upon their return to regain the required level of proficiency in their artillery fire support mission. A year is a long "time out" for a unit whose mission is tactically and technologically complex, but the British experience demonstrates that the risk can be managed. Even during the height of the Cold War, artillery regiments in the British Army of the Rhine took their turn, leaving their guns in Germany while they deployed to Northern Ireland. Their departure left gaps in the coverage British maneuver units would require in the event of a Soviet-Warsaw Pact attack. Nevertheless, the risk was judged acceptable by British authorities, and the gaps were managed by the division artillery

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<sup>5</sup> The term "brick" was replaced some years ago by "team." A team consists of one NCO + three soldiers, and is half a section or squad. One section consists of two teams, one led by a corporal and the other by a lance corporal, the section's second in command or "2ic."

<sup>6</sup> Dewar, op. cit., p.178.

commander. Today, the risk is obviously reduced, and British artillery regiments routinely leave their guns and deploy to Northern Ireland and Cyprus.

In concluding our dialogue concerning the British experience in Northern Ireland, Colonel Richard Cousens, British Liaison Officer to the U.S. Army Training and Doctrine Command and himself a veteran of several tours to the province, made the following statement:

[There is] one further point which might be worthy of mention and which is not necessarily well understood in the United States. That is that soldiers *enjoy* a tour in Northern Ireland. It is not seen as a drudgery but as a genuine challenge to relish. It is good for morale and retention. Soldiers, even Gunners (!), join the army for some excitement and the challenge of doing a worthwhile and real job; a tour in Northern Ireland provides that carrot. Many soldiers who are due to terminate their service before a unit goes to Northern Ireland voluntarily extend their service in order to go on the tour. Unit cohesion is enhanced, leaders at all levels are tested and the unit reaps huge long-term dividends in terms of confident, experienced, balanced and better-educated soldiers who have escaped from the straightjacket of special-to-arm training. Everyone gains—the army, the unit, and the individual.



**Annex B-2**  
**ANALYSIS OF THE TOTAL ARMY ANALYSIS 2005**  
**(TAA-05) FORCE<sup>1</sup>**

The Active Army structure projected for Fiscal Year 2005 includes 38 light infantry battalions and three light cavalry squadrons (Table B-2-1).

**Table B-2-1. Light Maneuver Battalions/Squadrons By Type, TAA-05**

Battalion/ Squadron	Airborne Inf SRC 07035	Air Assault Inf SRC 07055	Light Inf SRC 07015	Light Cav SRC 1746	Total
2d Inf		2			2
10th Mtn			9		9
25th Inf			9		9
82d Abn	9				9
101st Div		9			9
2d ACR				3	3
Total	9	11	18	3	41

The two air assault infantry battalions in the 2d Infantry Division are integral to the only division stationed in Korea and thus are not likely to be available for smaller-scale contingencies elsewhere in the world. The 82d Airborne Division and 101st Airborne Division (Air Assault) have specialized capabilities and are among the earliest units to deploy in the event of a crisis. It is therefore unlikely that either will be tasked to assume a long-term mission such as Bosnia (although the 82d and 101st have been committed in the past to the MFO mission in the Sinai). The 2d Armored Cavalry Division (Light) will redeploy to Fort Polk, Louisiana, following its current tour of duty in Bosnia, to become the experimental force for "experimentation with advanced concepts and technology to develop a highly lethal, strategically deployable, and tactically

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<sup>1</sup> This annex analyzes the combat and combat support forces as depicted in charts provided to the IDA study team by the Army (DAMO-FDF).

agile unit."<sup>2</sup> With these formations excluded, only the 18 light infantry battalions of 10th Mountain Division and the 25th Infantry Division are available to provide light infantry forces for “come-as-you-are” contingencies in the future and for rotations to Bosnia, the Sinai, Macedonia, and other, as-yet-unknown, long-term commitments.

If Active component mechanized infantry, armor, and armored cavalry battalions and squadrons can be temporarily reconfigured to assume the light infantry role, an additional 61 battalion-sized units would become available for assignment to missions such as Bosnia and the Sinai (Table B-2-2).

**Table B-2-2. Heavy Maneuver Battalions/Squadrons By Type, TAA-05**

Battalion/ Squadron	Mech Inf SRC 07245	Armor SRC 17375	Armd Cav SRC 17285	Armd Cav SRC 17485	Total
1st Cav	4	5	1		10
1st Armd	4	5	1		10
1st Inf	4	5	1		10
2d Inf	3	4	1		8
3d Inf	5	4	1		10
4th Inf	4	5	1		10
3d ACR				3	3
Total	24	28	6	3	61

If Active component divisional artillery, engineer, and air defense artillery units can also be reconfigured for temporary assumption of the light infantry role, an additional 66 battalion-sized units would become available for rotation to smaller-scale contingencies (Table B-2-3).

If Active component non-divisional artillery and engineer battalions can also be reconfigured for temporary assumption of the light infantry role, an additional 25 battalion-sized units would become available for rotation to smaller-scale contingencies (Table B-2-4).

It is important to note that mechanized infantry and tank battalions, armored cavalry squadrons, divisional artillery, engineer, and air defense artillery battalions, and non-divisional artillery and engineer battalions differ significantly in size. They all cannot be reconfigured in the same way, but all can be reconfigured.

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<sup>2</sup> COL Michael Mehaffey, “Force XXI Process,” a briefing, p. 24.

**Table B-2-3. Active Component Divisional Combat Support Units By Type, TAA-05**

Unit	Cannon Artillery		MLRS	Combat Engrs		Air Defense		Total
	SP	Tow'd		Heavy	Light	Heavy	Light	
1st Cav	3		1	3		1		8
1st Armd	3			3		1		7
1st Inf	3			3		1		7
2d Inf	3		1	3		1		8
3d Inf	3		1	3		1		8
4th Inf	3		1	3		1		8
10th Mtn		3			1		1	5
25th Inf		3			1		1	5
82d Abn		3			1		1	5
101st Div		3			1		1	5
Total	18	12	4	18	4	6	4	66

**Table B-2-4. Active Component Non-Divisional Artillery and Engineer Battalions, TAA-05**

TAA-05 Corps	Artillery Battalions		Engineer Battalions
	Cannon	MLRS	
1st Corps, 1st MTW	1	4	1
2d Corps, 1st MTW	5	7	5
1st Corps, 2d MTW		1	1
2d Corps, 2d MTW			
Total Battalions	6	12	7

Making the assumption that forces stationed in Korea and forces that are part of the early-deploying XVIII Airborne Corps should remain available for a major theater war or for rapid deployment to as-yet-unforeseen, "come-as-you-are" smaller-scale contingencies, and excluding tasking of the Army's light experimental force, at least in the near term, analysis shows that implementation of this option would increase the number of Active army battalions and squadrons available for rotational deployment to

long-term missions such as Bosnia and the Sinai from a realistic total of 18 light infantry battalions to 146, as indicated below:

<i>Total Light Maneuver Units</i> (including Airborne, Air Assault, and Light Infantry Battalions and Light Cavalry Squadrons)	41
Minus airborne and air assault units that deploy early to any MTW	<u>-18</u>
	23
Minus air assault units forward stationed in Korea	<u>-2</u>
	21
Minus the Army's experimental force (light)	<u>-3</u>
<i>Realistically Available Light Maneuver Units</i>	18
Plus heavy maneuver battalions/squadrons that could be re-roled	<u>61</u>
	79
Minus heavy maneuver battalions/squadrons in Korea	<u>-8</u>
<i>Realistically available Maneuver Units</i>	71
Plus divisional combat support battalions (artillery, engineers, and air defense)	<u>68*</u>
	139
Minus Korean and XVIII Airborne Corps Combat Support Units	<u>-18</u>
<i>Realistically Available Divisional Units</i>	121
Plus non-divisional artillery and engineer battalions	<u>+25*</u>
<i>Total Population Realistically Available for Use in Infantry Role in Smaller-Scale Contingencies</i>	146*

\*Note these figures do not exclude elements from early-deploying heavy divisions, such as the 1st Cavalry Division recently selected to rotate a brigade to Bosnia, or early-deploying non-divisional combat support elements.

## **Appendix C**

### **CREATE TDA "CONSTABULARY-TYPE" UNITS FOR SSCs AND LONG-TERM PEACETIME MISSIONS**

#### **DESCRIPTION**

This option envisions creating Table of Distribution and Allowances (TDA) organizations for specific long-term peacetime engagement missions and smaller-scale contingencies. Each unit thus created would be filled by the Army personnel system, with soldiers assigned to the unit for short tours (normally 12 months) on permanent change of station (PCS) orders, much the way units in Korea and other short-tour areas are filled. Any such organization would be tailored to the specific needs of the mission, such as the U.S. commitment to the Multinational Force and Observers (MFO) organization in the Sinai (a battalion task force) and the NATO Stabilization Force in Bosnia (a force whose size and shape are still being sorted out).

Use of the term "constabulary-type" is not intended to suggest that these units would have law enforcement powers or responsibility for training local police forces. Those are separate issues, driven by U.S. law and affected by the specifics of peace agreements such as the Dayton Accords—topics beyond the scope of this study. Rather, the term is used to describe this option because of a feature the proposed units would borrow from the United States Constabulary formed in Europe after World War II. Constabulary units were created by converting existing combat units, including armored infantry, armored field artillery, tank, tank destroyer, and antiaircraft battalions; and mechanized cavalry squadrons.<sup>1</sup> Mechanized cavalry unit Tables of Organization and Equipment (TOEs) were used as the basis, with some modifications,<sup>2</sup> and the resulting units were called Constabulary Squadrons and Constabulary Mechanized Troops. The Specification Serial Numbers (similar to today's Military Occupational Specialty [MOS] codes) listed in the TOEs were those of mechanized cavalry soldiers, so that a soldier

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<sup>1</sup> DoD, *The United States Constabulary*, 1947, p. 49.

<sup>2</sup> An additional reconnaissance troop was substituted for the assault gun troop in a mechanized cavalry squadron and the unit was augmented with additional signal equipment and vehicles. *Ibid.*, pp. 15–26.

serving in an armored field artillery battery as an artillery crewmember one day could find himself serving in a constabulary mechanized troop as a reconnaissance car crewman, scout, light truck driver, or rifleman the next day.<sup>3</sup> Such sudden reclassification from one MOS to another would be harmful today. Soldiers trained as artillery crewmembers could, with training, perform in a light infantry or cavalry role for a limited mission such as peacekeeping. On completion of a peacekeeping tour, however, those soldiers should return to the artillery MOS for which they were fully trained rather than being reassigned in an infantry or cavalry MOS for which their training was limited to a specific mission. This option therefore envisions maximum flexibility in specifying the officer branch or enlisted MOS for positions in the TDA units.

A TDA unit for the MFO-Sinai mission, for example, might be patterned after an infantry battalion, but individual positions might list "Combat Arms Immaterial" as the officer branch and "Duty Soldier" as the enlisted MOS. By this means, the population eligible for assignment would be made as large as practicable, and the PERSTEMPO burden would be spread across the entire Army rather than falling disproportionately on a particular skill.

This TDA approach could be especially helpful in providing command and control for smaller-scale contingency operations such as Bosnia, where a two-star commander is desired. The two division headquarters in Europe have already been rotated to Bosnia, and the Army recently announced that the 1st Cavalry Division headquarters will deploy to Bosnia next, along with 1 of its 3 maneuver brigades and only 3 of its 10 maneuver battalions. Taking an entire division headquarters to provide command and control for a third of a division may seem excessive, but Bosnia is a multinational operation conducted under NATO auspices, and the U.S. headquarters provides command and control for the forces of many other nations. Creating a TDA headquarters would relieve the Active Army of the need to rotate headquarters that are already fully engaged. It also would add to stability by eliminating the complete turnover of leadership that occurs when entire units rotate. When units are manned using the individual replacement system, the tour lengths of key personnel can be staggered, providing for continuous overlap of experience.

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<sup>3</sup> TOE 20-215T, Constabulary Squadron, 20 March 1946, and TOE 20-217T, Constabulary Mechanized Troop, 20 March 1946.

## RATIONALE

Smaller-scale contingency missions that are of long duration can be resourced in one of two ways—by rotating whole units, as the British Army does in Northern Ireland and the U.S. Army has done to date for the MFO-Sinai and Bosnia, or by rotating individual replacements, as the U.S. Army does almost everywhere else.

The Quadrennial Defense Review (QDR) found that U.S. forces must be able to withdraw from smaller-scale contingency operations, reconstitute, and then deploy to a major theater war in accordance with required timelines.<sup>4</sup> U.S. defense strategy is based on the ability of individual combat units to maintain individual and collective proficiency in core warfighting competencies while committed to operations other than war, and to transition from these peacetime activities to enhanced deterrence in crises, to war. That this is no easy feat was underscored in a recent Department of Defense report to Congress:

Diversion of strategic lift assets needed for withdrawal from an ongoing operation can impact arrival of forces and sustainment stocks to support a major theater war (MTW). In addition, indigenous rail, highway, and seaport conditions may limit the ability to withdraw rapidly. Extraction and redirection of combat and combat support units from ongoing contingencies is a difficult, complex, and time-consuming task—[requiring] time to extract, time to reconstitute and retrain to acceptable readiness levels, and time to deploy to an MTW.<sup>5</sup>

The magnitude of the challenge is revealed by the fact that the British Army allows a unit 3 months of mission-specific training before its Northern Ireland rotation and 3 months afterward to regain proficiency in its primary mission. The U.S. Army allows similar training and retraining time on either end of an infantry battalion rotation to the MFO-Sinai. Thus at any one time, not one but *three* units must be committed to a rotating smaller-scale contingency operation: one getting ready to deploy, one deployed, and one recovering. The ability of all three units to switch gears to “high end” combat tasks, and in particular the ability of the unit deployed to do so, has not had to be tested, but obviously there is risk involved.

Creation of a unit to which soldiers can be assigned individually would mitigate some of the risk. Each unit can be precisely tailored to the mission it is to perform and

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<sup>4</sup> William Cohen, *Report of the Quadrennial Defense Review*, p. 12.

<sup>5</sup> DoD, *Quarterly Readiness Report to the Congress, October-December 1997*, p. 17.

manned with individual replacements. Combat units would not have to interrupt the training needed for their “high end” combat missions, and would not have to be extracted from a smaller-scale contingency for redeployment to a major theater war.

While such a unit could conceivably be organized under a Table of Organization and Equipment (TOE) or a Modification Table of Organization and Equipment (MTOE), this option proposes a TDA organization for several reasons. First, such a unit would be organized, trained, and equipped to perform a specific smaller-scale contingency mission. It would have no other mission to train for. It would not submit readiness reports. Rather than having to withdraw from the smaller-scale contingency operation, reconstitute, and redeploy in the event of a major theater war, a TDA unit could simply be thinned, with individual members reassigned to fill deploying combat units or serve as replacements. In the event of two nearly simultaneous major theater wars requiring all available personnel, a TDA unit could simply be shut down, and its manpower absorbed back into the rest of the Army. As a TDA unit, its output, size, and shape could be changed by the theater commander to accommodate changes in the mission or unit workload. Upon completing its mission, the unit could be disbanded. If organized under a TDA, the unit could include military personnel of all components—Active, Army National Guard, and Army Reserve. It could include civilian employees as well, including host nation or third-country civilians. One example of an existing TDA unit created for the sole purpose of performing a specific mission is the Joint Security Area Support Group in Panmunjon, Korea. The unit is commanded by an American colonel, but its soldiers are from the Republic of Korea as well as the U.S. Army.

The Army at one point experimented with a TDA unit for the MFO-Sinai mission, using an infantry battalion as its structure. The composite battalion thus created was staffed by Active component personnel and both Army National Guard (ARNG) and U.S. Army Reserve (USAR) personnel serving on temporary tours of active duty.<sup>6</sup> Tentative plans to form a similar TDA unit for a subsequent rotation to the Sinai appear to have been quietly shelved, for reasons not made public, but the Army has reported to Congress that RC soldiers routinely deploy to the Sinai for duty with their AC counterparts.<sup>7</sup>

When the commander and key members of the 10th Mountain Division were interviewed following their return from operations in Somalia and Haiti in February 1995,

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<sup>6</sup> Stanley A. Horowitz and John R. Brinkerhoff, *A Battalion Task Force for the Sinai*, p. 2.

<sup>7</sup> Robert J. Walker and Dennis J. Reimer, *United States Army Posture Statement FY99*, p. 6.



their consensus was that some sort of force was needed to provide interim security in such places. They cited the MFO-Sinai composite battalion as a model, and suggested that units be trained for "constabulary duty" as a sole mission and used as a follow-on "relief in place" force, to be deployed 45 to 90 days after the active force is deployed to a smaller-scale contingency.<sup>8</sup>

This option would provide the kinds of units the 10th Mountain Division's leaders found are needed, with minimum diversion of active component combat units and maximum sharing of the PERSTEMPO burden. It also would eliminate the need to extract and reconstitute AC combat units needed for a major theater war.

A significant downside to this option is the inevitable lack of unit cohesion in a "pick-up" unit as opposed to an intact TOE unit.

## EVALUATION

*Major Theater War Capability.* This option would relieve combat units earmarked for major theater war contingencies from rotational duties in smaller-scale contingencies of long duration. With TDA units manned on an individual basis, no TOE combat unit would have its training for major theater warfare interrupted by temporary deployment to operations other than war. Units deploying to a major theater war would do so from their home stations; they would not have to first withdraw from a smaller-scale contingency and reconstitute.

*Flexibility/Fungibility.* This option would not contribute to making more units useful across a broader mission range. However, if TDA units were structured so that positions could be manned by a wide range of MOSs, a much larger portion of the Army would be eligible to take part in smaller-scale contingencies. In addition, this option would eliminate the need for rapid extraction of units from smaller-scale contingencies in the event of a major theater war.

*Tailorability/Modularity.* The TDA units proposed under this option can be precisely tailored to meet the specific requirements of the particular smaller-scale contingency mission for which they are created. As conditions change, the TDAs can be modified by the local commander.

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<sup>8</sup> Wade Hinkle et al., *Forming and Training Constabulary Forces*, Appendix J. For a more recent call for the creation of such a force, see Don M. Snider, "Let the Debate Begin: The Case for a Constabulary Force," *Army*, June 1998, pp. 14-16.

*Mobility, Strategic and Tactical.* Once established in the theater of a smaller-scale contingency, TDA units envisioned in this option would have no requirement for strategic mobility, as they would have no deployment mission. Individual replacements would deploy to the theater by military, charter, or commercial airlift. Tactical mobility would be whatever the TDA authorized, including commercial-off-the-shelf vehicles if appropriate to the mission.

*Capability vs. Asymmetrical Threats.* The ability of the constabulary-type units envisioned in this option to operate in the face of asymmetric threats is strictly a function of the way they are organized, trained, and equipped. Their use is not envisioned in the early stages of a contingency when the threat is high, and they should be established only for long-term peace operations where the belligerents have been separated and their weapons brought under control. Still, as TDA units, their capabilities can be tailored and quickly enhanced to meet new threats that may emerge in their assigned areas of operation.

*Command and Control.* This option neither streamlines nor flattens tactical headquarters.

*Joint/Combined Operations.* Rotating individual replacements to missions such as the MFO-Sinai and the NATO SFOR in Bosnia would expose greater numbers of soldiers to allied and coalition operations than would repeatedly rotating a limited number of units to the same missions. Organizing these units under TDAs would facilitate the assignment of civilian personnel, which in turn would facilitate local hire of the translators and interpreters that are often essential to successful combined operations.

*Readiness.* The TDA units proposed in this option would be manned at the expense of the rest of the Army, including combat units, exacerbating existing shortages and impacting readiness accordingly. However, in the event of a major theater war, the TDA units would stay in place, and all or part of their manpower could be reassigned to fill combat units deploying to a major theater war or to serve as individual replacements for units already in combat. The advantages of this option from a readiness perspective are, first, that Active component units would be freed of commitments and thus permitted to concentrate more fully on training for their “high end” combat missions. Second, this

option would obviate the need to extract AC combat and combat support units from ongoing contingencies and redirect them to MTWs, with all the readiness risks inherent in such an operation.

*PERSTEMPO.* This option would spread the PERSTEMPO burden of smaller-scale contingencies and peacetime engagement missions across the widest possible base, rather than confining it to particular types of units or particular skills. As a result, soldiers of many MOSs would be able to gain experience they otherwise might never receive, and soldiers holding particular skills, such as light infantry, would deploy away from their home stations less often.

*Cost.* The one-time costs associated with this option would primarily be for the procurement of equipment and would depend on the specific mission each TDA unit is created to perform. The recurring costs would be for operations and maintenance and for movement of individual soldiers to and from a short-tour area. Using RC volunteers would entail additional TTAD costs.

*AC Manpower.* This option would increase the number of authorized positions to be filled, with no corresponding increase in authorized Army end strength. In effect, it would cause existing units to have fewer soldiers assigned than they now have, resulting in some degree of "hollowness." The extent and impact of this hollowness would be a function of the number of MOSs eligible for assignment to the proposed TDA constabulary-type units. If soldier positions in the units were like recruiter or drill sergeant positions, to which most if not all MOSs may be assigned, the bill to be paid for establishment of the units would be spread across the entire Army, including, perhaps, the Guard and Reserve.

*Capital Equipment.* Creating TDA constabulary-type units to perform smaller-scale contingency missions would necessitate procurement of vehicles and equipment. Because the TDA units would have no other mission, however, maximum use could be made of commercial-off-the-shelf equipment. A positive impact would be reduced wear and tear on the TOE equipment of units currently being rotated to perform these missions.

*Utilization of RC.* DoD policy is that for lesser regional conflicts and other missions, where capabilities of the Reserve components could be required, maximum consideration be given to accessing volunteer Reserve component units and individuals before seeking authority to order members of the Reserve components to active duty

without their consent.<sup>9</sup> The TDAs for constabulary-type units could and should be designed to permit assignment of volunteers from the Guard and Reserve as well as active duty soldiers, spreading the PERSTEMPO burden even further and exposing soldiers of the Reserve components to leader training opportunities and experiences they otherwise might never receive. Even if the preponderance of billets in a TDA unit were AC, in the event of an MTW those positions could be backfilled by soldiers from the called-up or mobilized RC.

*Implementation Timeframe.* Implementation of this option could begin at almost any time. The transition from unit rotations to an individual replacement system would require careful management to stagger individual rotations over the full 12 months of a short tour.

*Complexity.* Transition from a system of unit rotations to one of individual replacements would be a complex undertaking requiring careful management, but once an individual replacement system was in effect, maintaining it would truly be “business as usual” for the Army.

## **SUMMARY/CONCLUSIONS**

Creating TDA constabulary-type units to perform specific, standing, long-term smaller-scale contingency missions would ameliorate the training, readiness, and PERSTEMPO impacts associated with the current system of rotating units every 6 months. Filling such units with individual replacements would cut into the assigned strength of every unit in the Army, but if the TDA positions were open to a wide variety of branches and skills, the impact would be spread across the entire Army.

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<sup>9</sup> DoDD 1235.10, para D.1 and DoDI 1235.12, para C.1.

## **Appendix E**

### **ALLOCATE ADDITIONAL MANPOWER TO EXISTING UNIT SETS OF HIGH-DEMAND WEAPON SYSTEMS**

#### **DESCRIPTION**

This option could be accomplished by allocating additional manpower to existing unit sets of equipment. It envisions supporting increased OPTEMPO of high-demand weapon systems such as Patriot without raising to intolerable levels the PERSTEMPO of soldiers who crew, support, and maintain them.

One means to accomplish this end would be to create two complete crews for a given set of equipment, allowing the equipment to be operated continuously by alternating crews. This is what the U.S. Navy did during the Cold War to keep ballistic missiles (and the nuclear submarines carrying them) at sea as continuously as possible. Each ballistic missile submarine had two complete crews—a Blue crew and a Gold crew. While one was on patrol, the other was ashore, training in preparation for its next deployment but able to work more-or-less standard duty days and to spend off-duty time with their families. After a normal patrol of 75 days, the submarine and crew would return to homeport for about a 5-day turnover with the new crew. After an additional 5 days of refitting, the fresh crew would put back out to sea for its 75-day patrol. With this rotation, and counting the overlapping days for turnover, each crew could expect to spend 3.5 months at home between 4-month tours away.<sup>1</sup>

Under the Global Military Force Policy (GMFP), the Military Services and U.S. Special Operations Command designate which of their assets are low density/high demand (LDHD), establish guidelines, and manage the OPTEMPO of assets they provide. “Steady-State OPTEMPO” is defined as the maximum level of peacetime operations that can reasonably be sustained indefinitely without adversely affecting normal training, exercise support, or scheduled maintenance cycles; and without violating Service PERSTEMPO goals. Authority to exceed the Steady-State OPTEMPO level established

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<sup>1</sup> Interview with Commander French Caldwell, USN, Ret., 26 May 1998.

for a particular LDHD asset is retained by the Secretary of Defense. Eight Army assets are among the 31 currently designated as LDHD. Seven are Special Operations Force (SOF) assets managed by U.S. Special Operations Command. The eighth is the Army's Patriot missile system. As of 16 April 1998, all eight were at or below Steady-State OPTEMPO.

If demand for Patriot batteries ever reaches the stage where Steady-State OPTEMPO is routinely exceeded, one possible solution would be to create additional batteries in the continental United States (CONUS) or Europe, then to alternate deployment of such units to a deployed equipment set. With more "unit sets" of personnel in existence than unit sets of equipment, the rotations to battery sets deployed to Kuwait, Saudi Arabia, Korea, and other short tour areas would be less frequent. PERSTEMPO would decrease accordingly. For example, two extra five-battery battalions of 566 personnel—each without equipment—would make a major difference in frequency of deployment for all units. If the requirement for the deployment ever went away, the "extra" unit set of personnel would be disbanded.

A variation on this adaptation of the Blue-Gold concept would be to create additional units consisting only of those skills and positions that are unique to the weapon system in question. A "Gold" Patriot battalion might therefore have all its air defense officers, system-qualified warrant officers, and enlisted Patriot crewmembers and maintainers (approximately 300 personnel), but would not have a full complement of common skills and specialties that are available elsewhere in the Army. The core Patriot capabilities of such a unit could be supplemented for overseas deployments with cooks, medics, wheeled vehicle mechanics, and other skills essential to deployment but not to Patriot operations.

Yet another way to get more use out of costly equipment such as Patriot and other weapon systems would be to borrow a concept from the Air Force. The Air Force Reserve's Associate Program pairs a Reserve unit with an Active Air Force unit to share active duty aircraft and equipment. As of June 1996, the program provided trained aircrews and maintenance personnel for some 300 active-duty aircraft and a space operations unit in Colorado. Reserve associate crews fly regularly scheduled strategic airlift and aeromedical airlift missions, reducing the Air Force Air Mobility Command's personnel and overhead costs. Associate unit maintenance personnel provide a surge capability that permits increased flying necessary during contingencies or in wartime.<sup>2</sup>

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<sup>2</sup> Department of Defense, *The Reserve Components of the United States Armed Forces*, p.48.

This concept could be adapted to Army needs by creating an Army National Guard (ARNG) Patriot battery or battalion and then pairing it with an Active component (AC) counterpart to share launchers, fire control equipment, and other costly equipment unique to the Patriot mission. For smaller-scale contingency (SSC) operations, in keeping with DoD policy,<sup>3</sup> consideration would be given to accessing volunteer crews and individuals from the ARNG Associate Unit. In addition, the ARNG could be tasked under Presidential Selected Reserve Call-up (PSRC) authority to provide whole units, individual crews, or individual fillers.

## RATIONALE

Assets in high demand can be skilled *people*, such as the Special Operations Forces that were addressed in the preceding appendix. High-demand assets can also include *weapons*, such as the Army's Patriot air defense missile. In essence, a weapon system consists of hardware and people. The hardware (and software) can be operated almost continuously, with periodic time-outs for preventive maintenance checks and services. The soldiers that man and support the weapon system, however, cannot operate continuously. They need to sleep. Some get sick or have family emergencies. To accommodate these human needs and still provide for around-the-clock combat capabilities, Army unit tables of organization and equipment (TOEs) build in some robustness. The number of personnel the TOE says are required in wartime is generally greater than the minimum number needed for safe operations. The required number provides a capability for sustained, around-the-clock operation.

This option only extends the idea of built-in robustness from unit level to the Army as a whole. If a provision can be made for more than one unit set of trained people to operate a given unit set of equipment, the equipment's OPTEMPO can be turned up all the way without exceeding the PERSTEMPO limits of its crews.

## EVALUATION

*Major Theater War Capability.* Because this option contemplates creating additional units to man existing sets of equipment, it does not add appreciably to overall Army capability, at least in the early stages of an MTW. Once all the existing equipment is manned, additional capability cannot be generated overnight. However, unit sets of

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<sup>3</sup> DoDD 1235.10, para D.1 and DoDI 1235.12, para C.1.

trained personnel can become added capability as soon as they are equipped, and in an MTW they could possibly be equipped from war reserve stocks or with new equipment coming off a warm assembly line. In addition, Blue and Gold crews and/or Air Force Reserve-type associate units are an ideal source of experienced manpower to add robustness to existing units or to replace casualties. Assuming that the assets in high demand now for SSC operations will also be in high demand for MTW, the ability to provide trained and experienced replacement crews and individuals is no small matter. It could take months for the training base to catch up to sudden wartime demand. This option could shorten the time required for people to man our most needed weapon systems.

*Flexibility/Fungibility.* This option does not make more units useful across a broader mission range, but it does enable scarce, specialized capabilities to be used more flexibly. In effect, it removes PERSTEMPO as an obstacle to higher OPTEMPO for the weapon systems needed most in SSC operations and in MTW.

*Tailorability/Modularity.* This option would permit a given set of equipment to be packaged with more than one set of people. Thus a unit's having just completed a deployment would not make it unavailable to be deployed again elsewhere.

*Mobility, Strategic and Tactical.* This option does not affect strategic or tactical mobility.

*Command and Control.* This option neither streamlines nor flattens tactical headquarters. Depending on the configuration chosen by the Army, however, the associate unit concept could result in one AC Patriot battalion headquarters providing headquarters functions for up to twice the standard number of batteries, counting ARNG as well as Regular.

*Joint/Combined Operations.* Rotating Blue and Gold crews or ARNG associate units to SSC missions such as Patriot deployments in Southwest Asia would expose greater numbers of officers and soldiers to coalition operations and thus would contribute to the development of future leaders.

*Readiness.* This option would permit weapon systems and equipment to be operated continuously for months or even years on end. The equipment itself, and its availability or lack of availability due to maintenance or supply, would drive unit readiness. Personnel would cease to pace unit readiness, as unit sets of personnel would periodically rotate to the equipment.



*PERSTEMPO.* This option would relieve the soldiers who operate, support, and maintain high demand weapon systems from the PERSTEMPO associated with the operating tempo of the weapon systems themselves.

*Cost.* Creating new AC units to permit a Blue and Gold crew for a given set of unit equipment would double the manpower requirement for each unit. However, since manpower would be diverted from elsewhere in the AC force, there would be no net increase in manpower costs other than the costs of training the new organization. Some additional facilities would be required to house the additional unit during periods when both the Blue and Gold crew are not deployed. Little equipment would be required because the whole idea is for two sets of people to take turns manning one set of equipment. Creating ARNG associate units would cost little except for the training required for award of the relevant Military Occupational Specialty (MOS). The ARNG manpower required to establish associate units could be obtained by converting combat units in the Strategic Reserve—the same way additional combat support (CSS) and combat service support (CSS) units are being established to fill the Army's existing CS-CSS shortfall.

*AC Manpower.* Creating a new "Gold" unit for some or all existing "Blue" units could require as much as a doubling of AC manpower for the function in question, such as Patriot. Creating ARNG Associate Units to share weapons and equipment with existing AC units would have no impact on AC manpower. Either alternative would markedly reduce the PERSTEMPO of AC soldiers currently assigned to high demand assets such as Patriot batteries.

*Capital Equipment.* This option requires no new equipment. Instead, it seeks to get more utility out of existing equipment by increasing the crew complement and rotating fresh crews to areas of operation.

*Utilization of RC.* Creation of ARNG Associate Units for existing AC LDHD units such as Patriot would significantly enhance integration of the Army National Guard—both structurally and in the execution of SSC operations.

*Implementation Timeframe.* Efforts to create additional unit sets of people, whether an AC Gold crew to relieve existing Blue crews or an ARNG Associate Unit to share equipment with an existing AC counterpart, could commence immediately and would take as much time as it takes to get all unit members MOS qualified through initial

entry training or reclassification action. Thereafter, a period of collective training would be required before the unit could be validated and certified as ready to deploy to an SSC operation or MTW.

*Complexity.* Stand-up of a new unit is always a complex operation. Under this option, units would be stood up but would not be issued an equipment set; instead, they would share the same set. Accomplishing the required individual and collective training, for both units sharing the same set of equipment, would demand careful scheduling and continuous monitoring to ensure both units get all the hands-on training they need.

## **SUMMARY/CONCLUSIONS**

Capabilities such as Patriot that are centered on expensive and complex equipment and that are in high demand may run into PERSTEMPO constraints before the equipment itself reaches its full operating potential. By creating a complete or partial duplicate unit, without the expensive equipment, the Army would be able to alternate crews to a deployed set of a equipment, much the way the Navy alternated Blue and Gold crews to nuclear submarines during the Cold War. Creating an ARNG Associate Unit to share equipment with an Active Army unit would also multiply the effectiveness of the equipment, assuring a higher return on a sizable investment and at the same time fulfilling peacetime commitments without running people into the ground.

## **Appendix F**

### **TASK THE ARMY NATIONAL GUARD TO PROVIDE UP TO A BRIGADE-SIZED UNIT FOR PREDICTABLE SSC MISSIONS**

#### **DESCRIPTION**

In this option, one or more missions currently performed by Active Army forces would be turned over to the Army National Guard (ARNG). It would be the responsibility of the Guard to manage rotations so that the required capabilities would be maintained on station at all times. This option could be implemented by ordering units and individual members of the Guard to active duty without their consent, under any of the various statutory provisions that authorize involuntary call-up, or by ordering members to active duty with their consent. The latter alternative is preferable.

#### **RATIONALE**

This option would relieve Active Army combat forces, which are required early in any major theater war scenario, of some portion of the deployment/PERSTEMPO burden associated with frequent smaller-scale contingency (SSC) operations and peacetime engagement activities. The Total Army Analysis 2005 (TAA-05) force will contain 30 ARNG brigades, counting divisions and enhanced Separate Brigades (eSBs). Assuming a 6-month brigade rotation to a mission such as Bosnia, it would take 15 years to go through the ARNG combat structure one time.

Units and individual members of the ARNG and other Reserve components can be ordered to active duty under a variety of authorities, ranging from full mobilization in time of war or national emergency declared by Congress to Presidential Selected Reserve Call-up (PSRC), which the President may invoke to augment the active forces for any operational mission. In addition, the law provides that, at any time, a National Guard member may be ordered to active duty with the consent of that member, subject to the consent of the governor or other appropriate authority of the State concerned. Department of Defense policy is that when Reserve component (RC) augmentation of the active forces is required for major regional conflicts and national emergencies, access to RC

units and individuals through an order to active duty without their consent will be assumed. For lesser regional conflicts, domestic emergencies, and other missions, where RC capabilities could be required, it is DoD policy that maximum consideration be given to accessing volunteer RC units and individuals before seeking authority to order members to active duty without their consent. (Annex F-1 summarizes statutory provisions and current policy governing employment of the RC in contingency operations.)

It can be argued that this option turns on its head the United States tradition of maintaining active forces to do things on short notice and RC forces to provide capabilities that must be mobilized in the event of a major war. While that was indeed the sort of AC-RC mix that developed during the Cold War, events since 1989 have suggested that a different approach may be in order. Indeed numerous studies have pointed to the need for our Reserve component force structure to have greater relevance in a changed strategic environment. Perhaps the best known step taken toward this end was the ARNG's contribution to the composite battalion task force formed and trained for duty from January to July 1995 with the Multinational Forces and Observers Mission, Sinai (MFO-Sinai). (Appendix F-2 summarizes the MFO-Sinai experience and other steps taken in recent years to encourage a more active role for the Reserve components.)

In view of the ARNG's experience with the composite MFO-Sinai task force, its own experience and that of other Reserve components with single- and multiple-component volunteer units,<sup>1</sup> and the continuing demand for forces to conduct and support smaller-scale contingencies, the ARNG is exploring whether to assign a mission to the commander of a Guard division.<sup>2</sup> Provided the mission's start date and duration are known far enough in advance to permit early assembly of volunteers and training of individuals and small units within the traditional Guard training program of monthly weekend drills and a 2-week annual training period, a brigade-sized mission could be assigned to the Army National Guard, which would in turn task it to a Guard division commander. The commander would then determine how best to plan and manage rotations to ensure the required capabilities are at all times available. In similar fashion, a rotating battalion-sized mission could be assigned to the commander of an eSB,

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<sup>1</sup> See for example Stanley A. Horowitz and John R. Brinkerhoff, *Case Studies: The 175th Fighter Group, Maryland National Guard, Over Bosnia, May 1995*.

<sup>2</sup> Interviews with Colonel Al Youngman and Colonel Jim Barrineau, Headquarters, Army National Guard.

particularly one that was not committed to a major theater war plan but was instead part of the Strategic Reserve.

The key to the concept is the predictability of the mission. Volunteers must be recruited, assembled, and trained on a firm time schedule leading to deployment overseas, performance of the mission, and return to homes and jobs on a date certain.

## EVALUATION

*Major Theater War Capability.* Assigning predictable, long-duration smaller-scale contingency missions and peacetime engagement missions to the Guard would improve the Total Army's ability to meet its MTW requirements. Every volunteer ARNG unit committed to a smaller-scale contingency represents an Active component unit that can continue training for the "high end" combat missions it was organized, trained, and equipped to perform. Moreover, the active unit remains available for deployment to a major theater war.

*Flexibility/Fungibility.* Relying on volunteers from the ARNG to provide capabilities required in smaller-scale contingencies would make the Guard—and therefore a major portion of the Total Army—relevant across a wider mission spectrum. More importantly, ARNG units of the Strategic Reserve, if employed in predictable missions such as peacekeeping and humanitarian operations, would not require rapid extraction from the smaller-scale contingency in the event of a major theater war, as an Active component combat unit might.

*Tailorability/Modularity.* Use of ARNG units ordered to active duty with their members' consent permits the formation of provisional units that can be precisely tailored to meet legal or policy constraints (strength of the MFO-Sinai task force, for example, is limited by treaty to 529 personnel<sup>3</sup>). Volunteer units can also be tailored by the addition and deletion of modules to meet the specific requirements of a particular mission (a unit can be formed without cooks, for example, if contract mess facilities are available in the theater).

*Mobility, Strategic and Tactical.* Regardless of their component, Active or Reserve, forces participating in recurring, rotating missions such as the MFO-Sinai or the NATO Stabilization Force (SFOR) in Bosnia require strategic lift for their deployment to

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<sup>3</sup> Stanley A. Horowitz and John R. Brinkerhoff, Case Studies: *A Composite Battalion Task Force for the Sinai*, p. 3.

the theater and their redeployment home upon completion of their rotation. The advantage in using ARNG forces in smaller-scale contingency operations is that they would not require extraction and redeployment to a major theater war, as Active component combat units performing the same missions could—and in the event of a second MTW would—require.

*Capability vs. Asymmetrical Threats.* This option is essentially neutral with respect to the ability of forces involved to operate in the face of asymmetric threats.

*Command and Control.* This option is essentially neutral with respect to command and control; it neither streamlines nor flattens tactical headquarters. ARNG divisions are organized into brigades and battalions whose headquarters elements could provide command and control in smaller-scale contingencies just as their Active component counterpart units are doing now.

*Joint/Combined Operations.* Rotating ARNG units to missions such as the Sinai, Macedonia, and Bosnia would expose greater numbers of officers and soldiers to allied and coalition operations than would sending Active component units back to the same missions repeatedly.

*Readiness.* Commitment of any force, Active or Reserve, to a smaller-scale contingency or peacetime engagement mission necessarily impacts its readiness for major theater warfare. Forming units from ARNG volunteers could have a significant effect on the readiness of their parent units, particularly if a majority come from a single unit. ARNG divisions, however, are part of the Strategic Reserve and have no deployment missions. The advantages of this option from a readiness perspective are that Active component units would be freed of commitments and thus able to concentrate more fully on training readiness for their “high end” combat missions. Moreover, they would not require extraction from a smaller-scale contingency and reconstitution before deployment to a major theater war.

*PERSTEMPO.* This option would relieve a good part of the Active Army of the burden of smaller-scale contingencies and peacetime engagement missions, and would spread the burden across a wide base within the ARNG. The Total Army Analysis 2005 (TAA-05) force will contain 30 ARNG brigades (counting divisions and eSBs). Assuming a 6-month brigade rotation to a mission such as Bosnia, it would take 15 years to go through the ARNG combat structure one time. If the units formed for such missions were documented so that a wide range of Military Occupational Specialties (MOSs) could

fill a given position (e.g., "combat arms immaterial" or "duty soldier"), the population from which to draw ARNG volunteers would be much larger, spreading the PERSTEMPO burden even more. This option would permit soldiers and leaders of the tasked divisions to gain experience they otherwise might never receive, and would reduce the frequency with which Active component soldiers and leaders deployed away from home stations.

*Cost.* Substituting an ARNG unit for an active unit in smaller-scale contingency missions would entail significant costs that exceed anything currently programmed by the Army or the Army National Guard. Members of the Guard who are ordered to active duty, with or without their consent, draw the same pay as an active duty member with the same pay grade and time in service. When they are on active duty for training, Reserve members' pay and allowances are paid out of Reserve military pay accounts. When they are on active duty other than for training, whether in a TTAD (temporary tour of active duty) or ADSW (active duty for special work) status, the difference between their Reserve pay and the active duty pay they are entitled to must be paid by the gaining command—the Active Army. There is no pot of money set aside to pay RC members ordered to active duty; thus, RC volunteers must be paid by diverting funds from other programmed activities. This funding problem works as a major disincentive to the use of RC units and members in smaller-scale contingencies, because the active component must take the added costs "out of hide."

The Active component also must pay the operating and maintenance (O&M) costs of the RC unit, as well as the O&M costs (mostly for training) of the Active component unit that otherwise would have been deployed in the RC unit's place.

Tasking the ARNG to provide a separate infantry brigade as envisioned in this option would cost the Army up to \$9 million a month. While savings of about \$500,000 a month accrue after the activation of Military Technicians, they would be more than offset by the increase in Active component military pay, OPTEMPO costs, and medical costs. The various costs and offsets are shared between the military pay, operations and maintenance, National Guard pay, and National Guard operations and maintenance accounts.

If RC units are ordered to active duty (with or without their members' consent) for smaller-scale contingencies, the Army may be reimbursed for the cost of their TTAD in the form of a supplemental appropriation. Appropriations are never a sure thing, however, and even if they are received they may not permit the Active Army to recoup all the costs.

If training events are canceled to divert funds to pay for smaller-scale contingencies, for example, the opportunities may be lost forever. A supplemental appropriation in August cannot buy back a National Training Center rotation that was available in March.

*AC Manpower.* No change is foreseen in the allocation of manpower among Active component units as a result of this option; however, this option would permit the allocation of Active component manpower from “low end” smaller-scale contingencies to the “high end” combat missions they were organized, trained, and equipped to perform. In addition, this option would markedly reduce Active component PERSTEMPO.

*Capital Equipment.* This option does not in and of itself require any new equipment or change in the use of existing equipment.

*Utilization of RC.* This option makes maximum use of Army National Guard combat force structure. It is consistent with existing DoD policy that for lesser regional conflicts and other missions, where capabilities of the Reserve components could be required, maximum consideration be given to accessing volunteer Reserve component units and individuals before seeking authority to order members of the Reserve components to active duty without their consent. Reliance on volunteers rather than call-up of complete ARNG units does present a downside in terms of unit cohesion. A major strength of many RC units is their long time together without the kinds of personnel turbulence AC units experience. Pulling such cohesive units apart to build “pick-up units” of volunteers would result in both units having less cohesion than the TOE unit that provided personnel to the composite volunteer unit. Unit cohesion would be far better maintained if entire RC units volunteered or were called up. (It is important to note that the essence of the option—assigning a mission to the Army National Guard and letting the Guard manage unit and individual rotations—would be equally applicable under PSRC or other mobilization authority.)

*Implementation Timeframe.* Depending on when a decision was made to implement this option and where the tasked ARNG unit was in its annual training program, it could take up to 2 years to assemble the first cohort of volunteers and get them trained and validated for deployment. The ARNG officers who discussed this concept with us suggested that prior warning of 2 or 3 years would be best for a division tasked to provide a brigade. Once the first rotation was identified and assembled, subsequent rotations would be scheduled at 6-month intervals, or whenever determined by the executing ARNG commander. We believe a battalion-sized force could be made available in considerably less time than a division. For the MFO-Sinai composite



battalion task force, for example, the call for USAR and ARNG volunteers was 1 March 1994, and the force completed its training and deployed just 10 months later, in January 1995.<sup>4</sup>

*Complexity.* Assuming the consent of the governor or other appropriate authority of the State or States concerned, this option would be relatively easy to implement. It would be easier to implement if the ARNG division tasked were one of the two that exist within a single-State; however, as demonstrated by the MFO-Sinai battalion, whose ARNG contingent came from 24 states, units formed using volunteers from many states can still be effective.<sup>5</sup>

## **SUMMARY/CONCLUSIONS**

Assigning a smaller-scale contingency or peacetime engagement mission to the Army National Guard would be consistent with DoD policy to give maximum consideration to accessing volunteer Reserve component units and individuals before seeking authority to order members to active duty without their consent. It would free Active component combat units to concentrate on training and preparation for their high-end mission of major theater warfare. At the same time, it would provide invaluable leader training for the officers and NCOs of the volunteer provisional units. While this option appears consistent with recommendations made by the Commission on Roles and Missions, the Quadrennial Defense Review, and the National Defense Panel, cost is a major impediment to its acceptance. The Active Army must pay the costs of bringing volunteer reservists on active duty, and while after-the-fact supplemental appropriations may cover these costs, they cannot recover lost training opportunities.

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<sup>4</sup> Ibid., p. 7.

<sup>5</sup> Ibid., p. 3.

**Annex F-1**

**STATUTORY PROVISIONS AND POLICY GUIDELINES**

**FOR USE OF RC FORCES IN CONTINGENCY OPERATIONS**

The term "contingency operation" means a military operation that (1) is designated by the Secretary of Defense as an operation in which members of the armed forces are or may become involved in military actions, operations, or hostilities against an enemy of the United States or against an opposing military force; or (2) results in the call or order to, or retention on, active duty of members of the uniformed services under . . . any provision of law during a war or during a national emergency declared by the President or Congress.<sup>1</sup>

In time of war or of national emergency declared by Congress . . . the Secretary concerned may, without the consent of the persons affected, order any unit, and any member not assigned to a unit organized to serve as a unit, of a Reserve component under the jurisdiction of that Secretary to active duty (other than for training) for the duration of the war or emergency and for 6 months thereafter.<sup>2</sup>

In time of national emergency declared by the President . . . the Secretary concerned may, without the consent of the persons concerned, order any unit, and any member not assigned to a unit organized to serve as a unit, in the Ready Reserve under the jurisdiction of that Secretary to active duty (other than for training) for not more than 24 consecutive months. . . . Not more than 1 million members of the Ready Reserve may be on active duty (other than for training), without their consent, under this section at any one time.<sup>3</sup>

[W]hen the President determines that it is necessary to augment the active forces for any operational mission, he may authorize the Secretary of Defense . . . , without the consent of the members concerned, to order any unit, and any member not assigned to a unit organized to serve as a unit of the Selected Reserve . . . to active duty (other than for

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<sup>1</sup> 10 USC 101(a)(13)

<sup>2</sup> 10 USC 12301(a)

<sup>3</sup> 10 USC 13202(a) and (c)

training) for not more than 270 days. . . . Not more than 200,000 members of the Selected Reserve may be on active duty under this section at any one time.<sup>4</sup>

At any time, an authority designated by the Secretary concerned may order a member of a Reserve component under his jurisdiction to active duty, or retain him on active duty, with the consent of that member. However, a member of the Army National Guard of the United States or the Air National Guard of the United States may not be ordered to active duty under this subsection without the consent of the governor or other appropriate authority of the State concerned.<sup>5</sup>

The consent of a Governor . . . may not be withheld (in whole or in part) with regard to active duty outside the United States, its territories, and its possessions, because of any objection to the location, purpose, type, or schedule of such active duty.<sup>6</sup>

For planning and programming purposes, it is DoD policy that when Reserve component augmentation of the active forces is required for major regional conflicts and national emergencies, access to the Reserve component units and individuals through an order to active duty without their consent will be assumed. For lesser regional conflicts, domestic emergencies, and other missions, where capabilities of the Reserve components could be required, maximum consideration will be given to accessing volunteer Reserve component units and individuals before seeking authority to order members of the Reserve components to active duty without their consent.<sup>7</sup>

Secretaries of the Military Departments are authorized, under Section 12301(d) of Title 10, United States Code, to employ units or individuals from the Ready Reserve to meet any military requirement . . . subject to the following limitations:

- (1) Members of the Army and Air National Guard of the United States may not be ordered to active duty as volunteers without the consent of the Governor or appropriate authority of the State, Territory, Puerto Rico, or the District of Columbia, whichever is concerned.
- (2) Volunteers from Reserve component units shall not be used in numbers that would degrade the readiness standards of their parent Reserve units below the levels required to meet assigned requirements of the Commanders of the

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<sup>4</sup> 10 USC 12304(a) and (c)

<sup>5</sup> 10 USC 12301(d)

<sup>6</sup> 10 USC 12301(f)

<sup>7</sup> DoDD 1235.10, para D.1 and DoDI 1235.12, para C.1.

Unified Combatant Commands unless the Chairman of the Joint Chiefs of Staff determines that the unit will not be required as a unit for subsequent deployment to other potential crises.

- (3) The limitations of Sections 12302 [maximum 1 million members for 24 months] and 12304 [maximum 200,000 members for 270 days] of Title 10, United States Code, either in numbers or periods of service, do not apply to individuals or units volunteering for active duty under Section 12301(d).<sup>8</sup>

The Chairman of the Joint Chief of Staff shall . . . recommend to the Secretary of Defense that, when members of the Armed Forces are or may become involved in military actions, operations, or hostilities against an enemy of the United States or against an opposing military force, the Secretary of Defense designate the operation as a contingency operation.<sup>9</sup>

Unless otherwise directed by the Secretary of Defense, combatant commanders may employ RC forces assigned to their commands in contingency operations (as defined in 10 USC 101(a)(13)) only when the forces have been mobilized for specified periods in accordance with the law, or when ordered to active with the consent of the member and validated by their parent Service.<sup>10</sup>

Unless otherwise directed by the Secretary of Defense, combatant commanders will exercise operational control (OPCON) of RC forces . . . participating anywhere in military operations or joint training under their jurisdiction.<sup>11</sup>

RC forces on active duty for training or performing inactive-duty training may be employed in connection with contingency operations only as provided by law, and when the primary purpose is for training consistent with their mission or specialty.<sup>12</sup>

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<sup>8</sup> DoDD 1235.10, para D.3.

<sup>9</sup> DoDD 1235.10, para E.7.D and DoDI 1235.12, para D.10.e

<sup>10</sup> "Forces for Unified Commands" document, para 3g(3).

<sup>11</sup> "Forces for Unified Commands" document, para 3g(2).

<sup>12</sup> "Forces for Unified Commands" document, para 3g(4).

## Annex F-2

### STEPS TOWARD A MORE ACTIVE ROLE FOR THE RC IN THE POST-COLD WAR ERA

Following the Vietnam War, under the leadership of Army Chief of Staff General Creighton Abrams, the Army structured itself so that it could never again be committed to a major war without a political decision to call up the Reserve components. In planning for a global war against the Soviet Union, full mobilization was assumed. Mobilization was essential to ensure both that (1) the necessary RC combat support (CS) and combat service support (CSS) elements would be available when needed to deploy in support of Active component combat forces, and (2) RC combat forces could complete post-mobilization training and be available for deployment as reinforcements about the time strategic lift became available to transport them to an overseas theater.

This reliance on full mobilization for major theater war created a dilemma for smaller-scale contingencies and operations other than war. The Army was structured in such a way that it needed Army National Guard (ARNG) and U.S. Army Reserve (USAR) resources for smaller-scale contingency operations but could obtain them only through Presidential Selected Reserve Call-up (PSRC) authority, which could not be assumed with any certainty. Indeed, one of the most controversial issues to arise from Operation DESERT STORM—the question of ARNG “roundout” brigade readiness—turned in large measure on PSRC. The 48th Mechanized Infantry Brigade, Georgia ARNG, and other round-out brigades were on the Army’s list of units to be called up. Because PSRC was not assured and the need to deploy forces was immediate, the Army opted to send the 197th Mechanized Infantry Brigade, a separate AC unit at Fort Benning, Georgia, with the 48th’s parent division, the 24th Infantry Division.<sup>1</sup> The deployment of these forces began some 2 weeks *before* PSRC authority was received, and by then the round-out brigades, having been replaced by Active component units, were no longer on the list of units to be called up. The 48th Mechanized Infantry Brigade from Georgia was

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<sup>1</sup> The 1st Cavalry Division’s round-out brigade was similarly replaced by a brigade of the 2d Armored Division.

ultimately ordered to active duty on 30 November 1990. It completed its required post-mobilization training in 91 days, but by the time it was validated for deployment, it was too late for the unit to deploy to participate in Operation DESERT STORM.<sup>2</sup>

The Army National Guard's response to the PSRC dilemma was to institute a formal program, Operation STANDARD BEARER, that aimed at getting whole units of volunteers who could be counted on to fill the gap between the start of an operation and the time PSRC authority would be obtained. At one time, the Guard's Operational Unit Program had identified 55 high-priority contingency force pool units whose members agreed to volunteer to enter on active duty within 7 days of notification. The Humanitarian Support Unit Program identified 89 units whose members agreed to volunteer to serve on short tours for humanitarian support missions outside the United States. A third program under the auspices of STANDARD BEARER was the Operational Integration Program, which was designed to provide tailored unit capabilities for peacekeeping or forward presence missions that permit long lead times in forming and training units for specific missions.<sup>3</sup> Perhaps the best known result of the Operational Integration Program was the ARNG's contribution to the composite battalion task force formed and trained for duty with the Multinational Forces and Observers Mission, Sinai (MFO-Sinai) from January to July 1995.

Using RC volunteers to fill a specially formed unit for the MFO-Sinai mission was the idea of former Army Chief of Staff General Gordon Sullivan. His original concept was to obtain RC volunteers from across the United States, but the ARNG altered this plan by attempting to obtain all 400 of its allocated share of volunteers from the 29th Infantry Division (Light). Initial optimistic assumptions about recruiting of volunteers were not borne out, however. The 29th Infantry Division was able to provide only half the required number, and the Guard ultimately had to accept volunteers from 24 states.<sup>4</sup> Performance of the unit was judged satisfactory; the composite task force accomplished its mission. Tentative plans to form a similar unit for a follow-on rotation appear to have

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<sup>2</sup> John R. Brinkerhoff, *Use of Guard and Reserve Combat Units in the Persian Gulf War*, p. 19, and subsequent discussions with Mr. Brinkerhoff.

<sup>3</sup> Stanley A. Horowitz and John R. Brinkerhoff, *Case Studies: The 670th Military Police Company in Operation Uphold Democracy*, pp 2-3.

<sup>4</sup> Stanley A. Horowitz and John R. Brinkerhoff, *Case Studies: A Composite Battalion Task Force for the U.S. Army Element of the Multinational Force and Observers Mission, Sinai*, pp. 1-4.

been quietly shelved, however, and today Operation STANDARD BEARER, never formally terminated, appears to have been allowed to die a natural death.

A case study of the MFO-Sinai composite unit observed that it would have been possible to form and staff a battalion task force entirely from the ARNG. Forming a new, provisional unit in this manner was judged to be feasible for specific missions whose start date and duration were certain enough in advance to allow a deliberate process to be used and whose duration was sufficient to justify the formation of a new, temporary, or semi-permanent unit. (The study further observed that while formation of such a unit is feasible, it is not clear it is a good idea.)<sup>5</sup>

As part of its review of the issue of constabulary forces, the staff of the Commission on Roles and Missions of the Armed Forces (CORM) interviewed the commander and key members of the staff of the 10th Mountain Division following the division's return from back-to-back operations in Somalia and Haiti. The consensus of those interviewed was that, in a place such as Haiti, some sort of force was needed to provide interim security until control could be established by local authorities. The group did not support the idea of U.S. Army forces being structured as a constabulary-type organization. Instead, the 10th Mountain's leaders cited the MFO-Sinai composite battalion as a model for consideration. Many felt that Active component forces were being overused in operations other than war, and suggested that selected Reserve component units be trained for "constabulary duty" as a sole mission and used as a follow-on "relief in place" force, to be deployed 45 to 90 days after initial entry by active force.<sup>6</sup>

This suggestion was further developed into a proposal that Reserve component units in excess of requirements for major contingencies (i.e., the ARNG divisions and eSBs in the Strategic Reserve) be re-designed for use in constabulary-like operations.<sup>7</sup> The CORM subsequently recommended that DoD acknowledge its emergency law enforcement and short-term constabulary training functions, and urged the Secretary of Defense to assign these tasks to the Armed Forces, including the Reserve components.<sup>8</sup> In a letter to the Senate Armed Services Committee that commented on the CORM's report,

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<sup>5</sup> Ibid., pp. 8-11.

<sup>6</sup> Wade Hinkle et al., *Forming and Training Constabulary Forces*, Appendix J.

<sup>7</sup> Hinkle et al., Appendix H.

<sup>8</sup> John P. White et al., *Directions for Defense*, p. 2-18.

Secretary of Defense Dr. William J. Perry said the Department of Defense recognized that U.S. forces may be called upon to carry out temporary police functions abroad under limited conditions, but that the training of foreign police forces was not seen as an appropriate DoD mission. The letter stated that the Secretary had asked the Chairman of the Joint Chiefs of Staff and the Office of the Secretary of Defense to investigate further opportunities to increase the role of the Reserves in operations other than war.<sup>9</sup>

A few months later, the Defense Science Board Task Force on Quality of Life issued its report. Included was an appendix titled "Separate Views" signed by a majority of the Task Force and several members of its various advisory groups. The appendix said:

Based on the Task Force's inquiry into personnel tempo and the role the reserve components might play in alleviating this situation, we have decided to offer an additional recommendation that is beyond the charter given the Task Force but is nevertheless critically relevant to providing a complete answer to this question.

In our judgment, the most fundamental question that needs to be addressed with respect to use of the reserve components is, 'What is the appropriate role for the Reserve components in our national security posture in the post-Cold War future?'<sup>10</sup>

Secretary Cohen later reported, following his own comprehensive review of our military forces, that Reserve components have become an ever larger percentage of the Total Force and are essential participants in the full spectrum of operations, from the smallest of smaller-scale contingency operations to major theater war. His report stated that in peacetime, reservists provide unique skills in carrying our smaller-scale contingency operations and help relieve active units of some peacetime commitments to decrease Active component personnel tempo and allow them to concentrate on higher priority tasks.<sup>11</sup>

The Quadrennial Defense Review was followed by the National Defense Panel, whose report said: "Reserve forces today play an increasing role in a variety of military operations worldwide, relieving active units and reducing both operational and personnel tempos of frequent and lengthy deployments." The Panel said it expects this role will be expanded, and that Reserve and Guard units must be prepared and resourced for use in a

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<sup>9</sup> Letter, Dr. Perry to Senator Strom Thurmand, 24 August 1995.

<sup>10</sup> John O. Marsh et al., *Report of the Defense Science Board Task Force on Quality of Life*, Appendix I.

<sup>11</sup> William S. Cohen, *Report of the Quadrennial Defense Review*, p. 32.



variety of ongoing operations. More specifically, the National Defense Panel recommended that ARNG units of the Strategic Reserve be given clear peacetime missions, and offered, as examples, support for combined operations in U.S. Southern Command and Partnership for Peace training in Eastern Europe.<sup>12</sup> Giving ARNG divisions of the Strategic Reserve a mission to provide and maintain a brigade-size element in Bosnia or smaller elements for MFO-Sinai, Macedonia, and similar smaller-scale contingency operations would be consistent with the National Defense Panel's recommendation. Secretary Cohen's comments on the Panel's recommendations indicated that among the proposals under consideration by the Army was increasing Reserve force utilization in support of rotational operational missions.<sup>13</sup>

More recently, Secretary Cohen reported that the Army has expanded its reliance on Reserve component combat forces to roles beyond that of strategic reserve. He noted that the RC contributions to the Sinai peacekeeping battalion and to Task Force Able Sentry in Macedonia demonstrate that smaller Reserve combat units can be utilized effectively.<sup>14</sup>

The Army, too, reports that RC soldiers are first string players in contributing to our national security efforts. They routinely deploy to the Sinai for MFO duty with their AC counterparts, and on any given day in 1997 approximately a fourth of the Army forces in Bosnia were from the Guard and Reserve.<sup>15</sup> The Regular Army evidently finds these RC soldiers able to perform to standard, for the Chief of Staff of the Army recently directed a policy change that allows qualified RC enlisted soldiers activated as part of the MFO-Sinai force to apply for enlistment in the Regular Army provided they do so at least 60 days before deployment.<sup>16</sup>

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<sup>12</sup> Philip A. Odeen et al., *Transforming Defense*, pp. 52-54.

<sup>13</sup> Letter, Secretary Cohen to Senator Strom Thurmond, 15 December 1997.

<sup>14</sup> William S. Cohen, *Annual Report to the President and the Congress 1998*, p. 82.

<sup>15</sup> Robert M. Walker and Dennis J. Reimer, *US Army Posture Statement FY 99*, p. 6.

<sup>16</sup> "Some MNF Observers can apply for Regular Army status," *Army Times*, 4 May 1998, p. 21.

## **Appendix G**

### **CONVERT ONE OR MORE ACTIVE COMPONENT HEAVY DIVISIONS TO HYBRID UNITS**

#### **DESCRIPTION**

The "hybrid" option considers converting elements within an Active component (AC) heavy division to Reserve component (RC). Subordinate elements would reside in both the Active and Reserve components. For purposes of evaluation, the study compares the current mechanized infantry division of 17,447 AC soldiers (appendix A, figure A-1) with one of the same structure but with a significant RC component.

There is nothing original about this approach. During the Cold War, several AC heavy divisions consisted of two AC brigades and one RC "roundout" brigade. The latter contained a complete slice of the divisional structure, including supporting artillery, engineers, and logistics units. RC "roundup" maneuver battalions have also been used in the past to bring heavy division maneuver strength from 9 maneuver units up to 10 or 11. Roundout and roundup were abandoned when the Army was reduced from 18 to 10 AC divisions, to ensure that the smaller number of divisions would be immediately available for deployment. Additionally, during the Gulf War the viability of the concept came into question when Presidential Selected Reserve Call-up (PSRC) authority was not received in time for three RC roundout brigades to be activated and join their parent AC divisions.

Now the Army is again beginning to explore different approaches to AC-RC integration. One is the recently announced formation of two "Integrated Divisions." Not deployable initially as divisions, these units nevertheless will group three Army National Guard (ARNG) enhanced Separate Brigades (eSBs) under an AC division headquarters and an AC division commander responsible for their peacetime training and readiness oversight. The division commander will have more authority over, and readiness responsibility for, the eSBs than was the case under the roundout/ roundup.<sup>1</sup> Additionally,

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<sup>1</sup> General David A. Bramlett, Commander, US Army Forces Command, briefing at IDA, 11 February 1998.

the Army is creating a number of "multi-component" units. These are defined as units with authorized personnel from more than one Army component (Active, Army National Guard, and Army Reserve) on a single authorization document. When created, these units will enjoy a higher degree of AC-RC integration than anything previously tried. So far, this multi-component concept is being implemented in 11 units, with about 50 more to be converted. All are non-divisional.

The hybrid option differs from those just described primarily in its conceptual approach. The hybrid division design retains all divisional maneuver battalions in the AC while placing substantial portions of the division's combat support (CS) and combat service support (CSS) structure in the RC. While the particulars can and should be left to the Army to decide, for purposes of this evaluation, the air defense battalion, three artillery battalions, two engineer battalions, an aviation battalion, the medical companies in the three forward support battalions, and the division's chemical company would be converted to RC (figure G-1). Counting only the strength of these units, roughly 4,037 spaces would be converted from AC to RC, and the AC complement of a heavy division would be reduced to 13,410. Additional AC savings could be generated by converting proportional spaces in the headquarters battery of division artillery and the headquarters companies of the division support command and the engineer and aviation brigades. Incremental savings would accrue from AC units supporting those converted to RC. An estimated 400 additional spaces could be converted for a total of 4,437. The AC division strength would then be about 13,010. (Note: The hybrid option also dovetails with the new Army XXI heavy division—formerly called the "Conservative Heavy Division" (CHD)—announced by the Army on 9 June 1998. Though its structure is not known in fine detail, Army XXI heavy division cuts appear to be taken from maneuver companies, artillery sections, and corresponding support slices and will bring the division's AC strength down to just over 15,000. The additional reductions associated with the hybrid option would further reduce AC strength to approximately 11,000.)

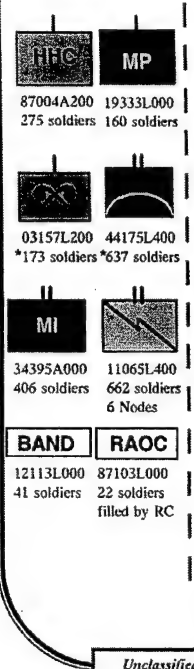


DAMO-PDF

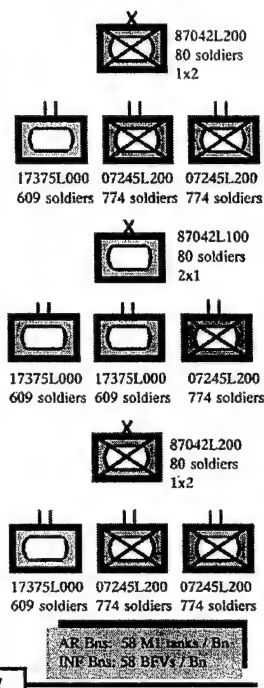
# Mechanized Infantry Division

17,447 soldiers

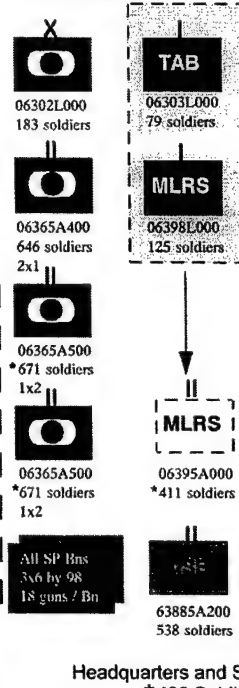
## DIVISION TROOPS



## MANEUVER



## DIVARTY



## DISCOM



## AVIATION



## DIVENG

Headquarters and Support Units  
\*400 Soldiers

DAMO-PDF

\*Spaces converted to RC

Figure G-1. Hybrid Division Design

## RATIONALE

The conceptual approach that leads to the hybrid option is derived from insights gleaned through mission/capability analysis as well as issues surrounding the demise of the roundout and roundup designs. The hybrid option retains in the AC the heavy division's 10 ground maneuver units,<sup>2</sup> which have the most challenging training and readiness tasks associated with the synergies of combined arms and the uncertainties of terrain and weather. This option therefore retains in the AC the core combat capabilities of the heavy division as the framework around which to build the hybrid team. The AC framework also includes the headquarters of division artillery and support commands and the aviation and engineer brigades,<sup>3</sup> under which most of the RC battalion- and company-sized elements would fit. The core maneuver capabilities retained as AC in this option are those most useful—in most cases, especially the infantry—for smaller-scale contingency operations. The majority of unit types identified for conversion to RC are required primarily or exclusively for major theater war (MTW) and are, in addition, those which have proven to be quite successful as RC augmentation to AC at corps level in the past. Assuming the division commander will have direct responsibility for the training and readiness oversight of the hybrid division's RC "plugs" and that they have resourcing priority comparable to eSBs, these units should be available for deployment in a relatively short time—perhaps 30 days or less.

Without most of its RC augmentation, the hybrid division is structured as a stand-alone, though less capable, unit. Depending on the local situation, it could deploy "as is"—without RC plugs, or with only some of them—for a lengthy smaller-scale contingency operation. It also could deploy "as is" for a major theater war (MTW) to provide deterrence or for employment, within its reduced capabilities, until PSRC authority is received and its RC augmentation can complete post-mobilization training and deploy to the theater. Piecemeal deployment such as this is undesirable and could be avoided if this option were implemented in no more than two of the six AC heavy divisions. These divisions would be earmarked for the second of two nearly simultaneous MTWs. Two hybrid divisions tasked for the second of two MTWs would have ample time to activate their RC plugs and ready themselves for deployment *provided PSRC*

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<sup>2</sup> Nine infantry and tank battalions, and one cavalry squadron.

<sup>3</sup> If the Engineer brigade headquarters remains in the division.

were an automatic reaction to initiation of the first MTW. If hybrid divisions were reserved for the second of two MTWs and their RC elements were automatically activated upon initiation of a first MTW, this option could provide substantial savings in AC manpower and an opportunity to capitalize on RC integration potential. It would have no impact on readiness for smaller-scale contingency operations and only a slight impact on readiness for a second MTW.

## EVALUATION

*Major Theater War Capability.* Substituting Reserve component CS and CSS battalions and companies for AC units in up to two heavy divisions will not significantly impact the Army's MTW capability provided it is managed prudently. The two divisions would be earmarked for the second MTW and their RC augmentation would be activated automatically when the first units were alerted for deployment to the first MTW. Additionally, the RC augmentation units should be among the highest in RC readiness and should be under the training and readiness oversight authority of the hybrid division commander. If these guidelines are met, this option could improve the readiness for MTW of the remainder of the force by freeing AC manpower for reallocation.

*Mission Flexibility/Fungibility.* Compared with the roundout approach to RC integration, the hybrid option retains more of the divisional ground maneuver units in the AC. Even in the case of heavy divisions, the ground maneuver units are the most fungible for other missions relative to the CS and CSS units identified for conversion to RC. Therefore, the hybrid division option maintains—and may slightly enhance—mission flexibility and fungibility. This is certainly true relative to other AC-RC integration schemes.

*Tailorability, Modularity.* By removing divisional battalions and companies required primarily for MTW, the remaining structure becomes a smaller AC module. The RC battalions and companies are also individual modules that can be plugged back into the divisional framework as required. This results in a more malleable and modular organization. The resultant AC manpower savings make it more efficient as well.

*Mobility, Strategic and Tactical.* This option makes no contribution toward improving the mobility of the heavy division for MTW unless it were to deploy early without RC plugs. The lift requirement for SSC is reduced since up to seven battalions probably would not deploy.

*Capability vs. Asymmetrical Threats.* This option does not address current weaknesses. The conversion of the chemical company to RC would add a slight degree of risk with respect to a WMD threat if the AC division were to deploy to MTW or SSC without this unit. Presumably, that would not happen if the threat were thought to exist.

*Command and Control.* By retaining the division artillery and support command and aviation and engineer brigade headquarters this approach appears to undermine the proscription to streamline and flatten tactical headquarters. This is a valid criticism. However, if those headquarters were made multi-component with a proportional reduction in AC manning, this weakness would be at least partially addressed. Additionally, it is important to the concept that the structure at brigade level be retained to ensure the viability of the organization as a whole upon deployment and to provide the RC battalions adequate oversight and assistance to ensure their readiness for short-notice activation and deployment.

*Joint/Combined Operations.* This approach does not improve the integration of the Army component in joint or combined operations.

*Readiness.* The AC manpower saved by converting one or two heavy divisions to the hybrid configuration can be applied directly to remedying readiness shortfalls elsewhere in the AC force. Presumably, this would improve the readiness of the remaining, purely AC divisions and would better match structure with manpower resources. The readiness of the hybrid divisions themselves would suffer but, if managed properly and linked to realistic activation and deployment schedules for the second MTW,<sup>4</sup> it should not impact availability for war planning. A significant downside to this option is that combined arms training would suffer for lack of CS/CSS units with which the AC maneuver elements could train. Even following activation of the division's RC "plugs," combined arms training would be difficult because the RC units' first priority would be to complete post-mobilization training requirements needed to be validated and certified for deployment.

*PERSTEMPO.* Maneuver battalions in the hybrid structure remained part of the AC largely because they had greater utility across the mission spectrum. Although this is

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<sup>4</sup> If the second MTW occurs soon after the first, constrained availability of air- and sealift will delay deployment of the later deploying units, offering adequate time to integrate and make ready the RC plugs. If there is a more lengthy gap between the two MTWs, and RC plugs are activated on initiation of the first MTW, again there will be adequate time to integrate and make ready the RC plugs.

less true for heavy divisions than lighter ones, the principle remains valid. Retaining these capabilities in the AC structure ensures their immediate availability for SSC, including possible temporary reconfiguration as outlined in Appendix B. It also ensures their immediate availability for MTW.

*Cost.* Implementing this option could entail minor costs of moving people and equipment to new locations. In the long run, this option would save about \$33 million in annual operating costs for each hybrid heavy division.

*AC Manpower.* The principal justification for the hybrid division is that it would permit improved allocation of limited AC manpower to other portions of the force, thereby reducing shortages. The example presented would release more than 4,400 AC spaces for reallocation.

*Capital Equipment.* There are no capital equipment costs for this option. All existing equipment would be redeployed to the RC units identified to replace those converted.

*Utilization of RC.* The hybrid division concept is based on the premise that improved RC integration is possible and beneficial to the Total Army in an era of scarce resources. As outlined, it leverages RC integration to achieve AC efficiencies while capitalizing on RC strengths.

*Implementation Timeframe.* Since two ARNG divisions have been earmarked for phase out, counterparts for most if not all divisional elements identified for conversion already exist in the RC. Therefore, at least theoretically, implementation could be accomplished quickly after a decision to do so. It is more likely, however, that implementation would be phased methodically over a year or two.

*Complexity.* The hybrid division concept is simple. Implementation would be a challenge, however, since this variation on AC-RC integration has not been tried before. Questions regarding legal authorities are currently being addressed within the context of the two new integrated divisions. Nevertheless, it is eminently workable.

## **SUMMARY/CONCLUSIONS**

Converting one or two heavy divisions to the hybrid model would free critical AC manpower for reallocation to eliminate shortfalls and improve readiness of the remainder of the force. It would decrease annual operating costs as well. It retains in the AC the division's 10 ground combat maneuver units, which have the most challenging training



and readiness tasks associated with the synergies of combined arms, and the framework for rapid expansion. It maintains a stand-alone capability for deployment under certain conditions. The hybrid division's main disadvantage is reduced readiness for MTW. This would necessarily limit its sequencing in war plans to deployment late in the flow.

## **Appendix H**

### **CONVERT AN ACTIVE HEAVY DIVISION TO LIGHT DIVISION CONFIGURATION**

#### **DESCRIPTION**

This option would convert one Active component (AC) heavy division of over 17,000 (appendix A, figures A-1 and A-2) to a light infantry division of 11,681 (appendix A, figure A-3). Light infantry is proposed rather than airmobile infantry because of the costs of the helicopters that would be required for conversion to the latter. Light infantry is proposed rather than airborne infantry because there is no demonstrated need for more than one airborne division.<sup>1</sup> The manpower savings from this conversion would be over 5,500 spaces, not including combat support (CS) and combat service support (CSS) savings at echelons above division.

#### **RATIONALE**

The argument in favor of an additional light division is premised on four theses. First, light divisions are more useful for smaller-scale contingency (SSC) operations than heavy divisions, as demonstrated by the experience of the 10th Mountain Division since the Gulf War. Second, such a conversion would produce a significant manpower savings, not only the more-than 5,500 within the division but potentially double that in CS and CSS from the division slice. Third, light division annual operating costs are about a third those of heavy divisions. Fourth, despite the significant reduction in AC combat power that this conversion would entail, the risk of reduced AC readiness for major theater war (MTW) can be managed through greater reliance on Army National Guard (ARNG) heavy enhanced Separate Brigades (eSBs) to fill the gap. Presumably, if eSBs are deployable 90 days after mobilization, if the second MTW begins 45 days after the first, and if strategic lift is constrained by the requirements of two MTWs, heavy eSBs could be

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<sup>1</sup> Army force structure has included only one airborne division since the end of the Vietnam War. One was considered sufficient when there were 18 AC divisions.

ready in time to meet deployment schedules and participate as first team players in the second MTW—thus offsetting the reduction of one AC heavy division.

Clearly, another light division in the AC would ease the strain on the other four -- all of which have been committed to SSC operations in varying degrees since the Gulf War.<sup>2</sup> Another light division would certainly help distribute the PERSTEMPO load and could permit units to focus more attention on "high end" training heretofore left undone. This would enhance their readiness for MTW as well as other unexpected "come-as-you-are" combat contingencies.

## EVALUATION

*Major Theater War Capability.* Substituting a light division for a heavy division in the AC would not improve the AC's MTW capability. Although more strategically mobile, light divisions are less well suited for most MTW missions than are heavy divisions. The two pure light divisions now in the AC structure (10th Mountain and 25th Infantry) are sufficient to provide one rapidly deployable division for each of two nearly simultaneous MTWs. Heavy or motorized divisions would be preferred over additional light units. If a motorized division were available, it would be preferable to a light division, given its superiority in tactical mobility and firepower. Before deciding to rely on RC eSBs to replace an AC heavy division for the second MTW, more research and evaluation of eSB post-mobilization training and deployability are needed. The decision should be coupled with realistic assessments of reinforcement flow to two MTWs and the planned deployment sequence.

*Flexibility/Fungibility.* A light division would be more fungible across the mission spectrum than a heavy division. However, as already noted, light divisions are less flexible for the Army's primary MTW mission because they lack tactical mobility once deployed.

*Tailorability, Modularity.* Light units are somewhat more malleable than heavy units because of their much smaller support tail. This also makes them, or their subordinate parts, more modular since they are easily cross-attached. The same is not true for heavy units, which can be attached to lighter organizations only with difficulty.

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<sup>2</sup> The 10th Mountain Division to Somalia, Haiti, and domestic disaster relief operations; the 25th Infantry Division to Haiti and humanitarian relief operations in the US Pacific Command area; the 82d Airborne Division to Haiti; and the 101st Airborne Division (Air Assault) to the Multinational Force and Observers Mission in the Sinai (MFO-Sinai).

*Mobility, Strategic and Tactical.* This option would gain the strategic mobility of light divisions at the expense of the great tactical mobility of heavy divisions.

*Capability vs. Asymmetrical Threats.* The addition of a light division would increase the proportion of the AC force best suited to operating in urban terrain.

*Command and Control.* This option makes no contribution to streamlining or flattening tactical headquarters.

*Joint/Combined Operations.* This option does not address the joint/combined operations issue.

*Readiness.* The manpower savings this option would produce, when redistributed across the AC force to alleviate shortfalls, could improve readiness across the board. Similarly the reduced operating costs of a light division would provide funding to address other Army needs that are currently unfunded.

*PERSTEMPO.* Another light division in the AC force structure would increase by 25 percent the availability of units for which the greatest demand is forecast. Therefore, the PERSTEMPO for units normally committed to SSC operations should improve. This would not, however, ease the PERSTEMPO strain on low density/high demand (LDHD) units; they are of a different type.

*Cost.* Given the vehicle density of heavy divisions, little procurement would be required for this option. Most if not all required vehicles and aircraft are already in place. Procurement of small numbers of "light" items, such as towed 105mm and 155mm artillery, would be necessary. Small costs are associated with standing down the heavy division, shipping out heavy equipment, and training the new unit to standard. These costs could be more than offset by the savings from avoided upgrades to tanks, infantry fighting vehicles, and artillery. After conversion, the lower annual operating costs of the light division will save approximately \$86 million annually.<sup>3</sup> As discussed above, this option would also generate manpower savings. Conversion of a standard heavy division to standard light division configuration would free more than 5,500 spaces for allocation elsewhere within the AC, and corresponding reductions in the corps support structure could potentially save double that amount. From a cost basis, this option is feasible and attractive.

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<sup>3</sup> Comparison of direct equipment costs only. No personnel savings result from conversion since all manpower is assumed transferred to other billets.

*AC Manpower.* Relative to an AC mechanized infantry division of 17,447 soldiers, the light division requires 11,681—a reduction of 5,766 spaces. Additional savings are available in the echelons-above-division CS and CSS structure required to support a heavy versus a light division. Using the historical division slice ratio of 2 to 1,<sup>4</sup> more than 11,000 CS and CSS spaces at corps and above could be saved. Approximately one-third would be AC and the rest RC. This manpower can be applied to alleviate shortfalls elsewhere in the force. The anticipated Conservative Heavy Division (CHD) would already have implemented some of these savings. Compared with a standard heavy division, a CHD converted to light configuration produces more modest savings—3,391 spaces—with 6,700 additional spaces at corps and above.

*Capital Equipment.* A significant advantage of this option is that it requires little new procurement. Nearly all the equipment required in a light division is already in the heavy division or available for efficient reallocation. The principal exceptions are towed howitzers and Avenger light air defense systems.

*Utilization of RC.* This option places greater reliance on ARNG heavy eSBs that would replace the converted AC heavy division in the second of two MTWs. In addition, it potentially saves more than 7,000 Reserve component CS and CSS spaces.

*Implementation Timeframe.* Since little new equipment is required, the conversion of one AC division from heavy to light could begin immediately. The largest impact would be on the maneuver battalions, including the cavalry squadron, and would include replacing four tank battalions with light infantry. The latter could take up to a year. Conversion of the artillery and air defense battalions would have to await procurement, but since the equipment is off-the-shelf, lead time to begin transition would be as short as a year or less, and training on new equipment would follow. Some additional training time for the entire division would be required after the battalion and equipment transitions were completed.

*Complexity.* Conversion from heavy to light is simple in concept and planning since there are no unknowns. Phasing by brigade slice to preserve the readiness of the remainder of the division during the process would ease and simplify the transition as well. A more rapid conversion would increase complexity.

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<sup>4</sup> John C. F. Tillson et al., *Review of the Army Process for Determining Force Structure Requirements*, p. A-34.

## **SUMMARY/CONCLUSIONS**

Converting one AC division from heavy to light would increase the proportion of the Active Army most relevant to SSC operations and decrease the proportion specifically organized, trained, and equipped for MTW. The new light division would save manpower and money, both of which would contribute to increasing AC readiness overall. The main disadvantages of this option are the risks associated with increased reliance on RC for the second of two MTWs and the relatively small impact it would have on reducing PERSTEMPO for the units, both AC and RC, that are stressed the most by SSC operations. Before implementation, this option would require simulation and field test validation of heavy eSB capability to meet post-mobilization objectives and deployment time lines for MTW.

## **Appendix I**

### **CONVERT AN ACTIVE COMPONENT HEAVY DIVISION TO MOTORIZED DIVISION CONFIGURATION**

#### **DESCRIPTION**

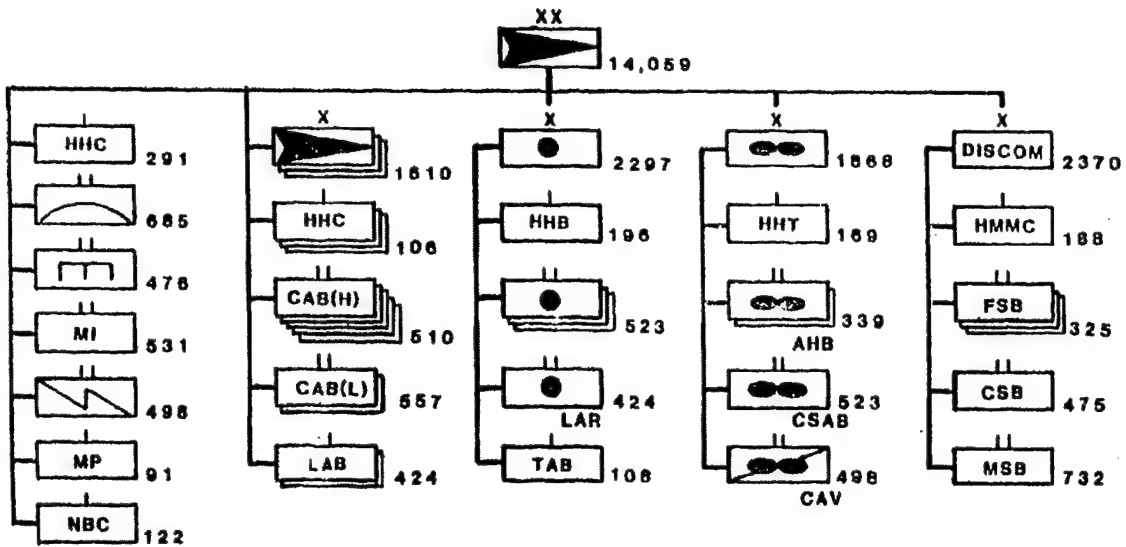
This option is a straightforward conversion of an Active component (AC) heavy division to a motorized configuration. For purposes of evaluation the study compares the current mechanized infantry division of 17,447 soldiers (appendix A, figure A-1) with the structure and equipment of the 9th Motorized Division envisioned by the Chief of Staff of the Army, General Meyer, in 1980, tested and evaluated for 4 years and then approved by his successor, General Wickham, in December 1984.<sup>1</sup> The Table of Organization and Equipment (TOE) approved for the 9th Motorized Division comprised 14,059 men (figure I-1). The division was 100 percent mobile tactically and could be strategically lifted in 1200 C-141B sorties.<sup>2</sup> The 9th Motorized Division was removed from the force structure in 1989 during the early stages of the post-Cold War drawdown. While the need for the middleweight capability was widely recognized within the Army and led General Meyer to establish the 9th Motorized Division, many factors contributed to its demise. These included the unorthodox methods used for testing the concept and procuring equipment, which bypassed the traditional proponentcies and made the division an orphan without institutional sponsors. In addition, achieving the division's design capability depended on fielding two key lightweight weapons platforms, the Armored Gun System and the Fast Attack Vehicle; Congress denied funding for both. The division was yet another non-standard, one-of-a-kind unit that complicated training, support, and sustainment. Finally, the introduction of the Light Infantry Division concept in 1984 created a competitor that did have strong institutional support and also reduced costs and increased strategic mobility.

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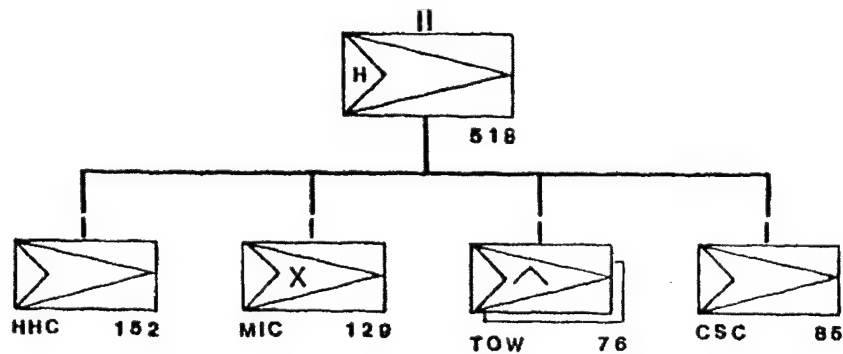
<sup>1</sup> Stephen L. Bowman et al., *Motorized Experience of the 9th Infantry Division, Ft Lewis, WA, 1980-1989*, p. 5.

<sup>2</sup> *Ibid.*, fig. 9.

## MOTORIZED DIVISION



## INTERIM COMBINED ARMS BATTALION, HEAVY (CAB-H)



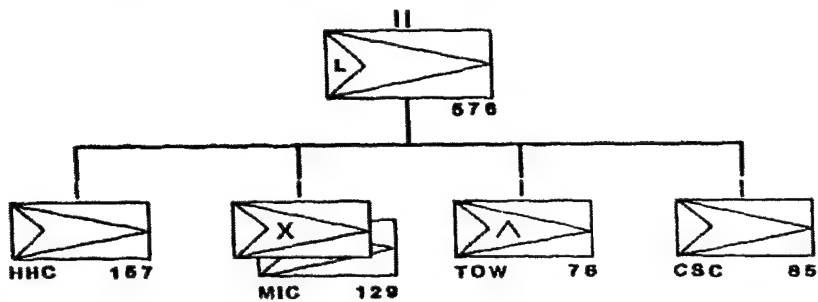
44 - HMMWV TOW  
 67 - MK19 GMG  
 15 - DRAGON  
 6 - MORTARS, 107mm  
 9 - INF SQUADS

Source: Stephen Bowman, John Kendall, and James Saunders, *Motorized Experience of the 9th Infantry Division*, Ft Lewis, WA, 1980-1989, Washington, DC, U.S. Army Center of Military History, 1989.

Figure I-1. Approved TOE for 9th Motorized Division (page 1 of 2)

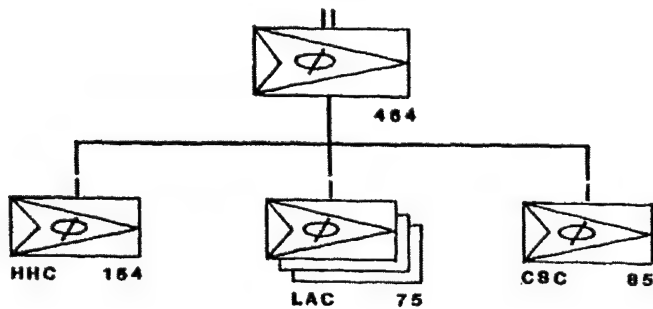


# **INTERIM COMBINED ARMS BATTALION, LIGHT (CAB-L)**



24 - HMMWV TOW  
 75 - MK19 GMG  
 30 - DRAGON  
 6 - MORTARS, 107 mm  
 18 - INF SQUADS

# **INTERIM LIGHT ATTACK BATTALION (LAB)**



31 - HMMV TOW  
 91 - MK19 GMG  
 6 - MORTARS, 107 mm

Source: Stephen Bowman, John Kendall, and James Saunders, *Motorized Experience of the 9th Infantry Division, Ft Lewis, WA, 1980-1989*, Washington, DC, U.S. Army Center of Military History, 1989.

**Figure I-1. Approved TOE for 9th Motorized Division (page 2 of 2)**

## RATIONALE

The motorized division is both strategically and tactically mobile. Thus it fills the gap between the strategically immobile heavy division and the tactically immobile light division. Superior mobility, versatility, and flexibility are the strengths that offer a CINC a unit that can quickly get into theater and can accomplish a wide range of missions, including major theater war (MTW), immediately upon closure. Mission/capability analysis indicates that forces in the middleweight category are effective across a wider portion of the mission spectrum than either heavy or light. Motorized infantry in particular appears to optimize the middleweight mission capability from benign humanitarian operations to MTW. Moreover, the division is smaller than the heavy division, offering potential manpower savings, and is cheaper to operate and sustain. Converting one heavy division to motorized configuration would make a larger proportion of the AC force suitable for a wider range of missions without significantly impacting MTW capability. Indeed, reintroducing the motorized division could enhance MTW capability by filling the gap between closure of light forces and arrival of heavy forces with a unit capable of mobile antiarmor warfare. The five remaining AC heavy divisions—backed by eight Army National Guard (ARNG) heavy enhanced Separate Brigades (eSBs), the motorized division, the AC lighter forces, and light eSBs—are sufficient for MTW requirements.

## EVALUATION

*Major Theater War Capability.* Substituting a motorized division for a heavy division in the AC force structure enhances Army core warfighting capability by "providing the nation a deployable, highly mobile and lethal, strategic response to a heavy threat force."<sup>3</sup> The combination of rapid projection, mobility, and lethality—a combination which does not now exist—could be decisive in deterring conflict or in preventing the loss of critical territory or resources during the early stages of an MTW, before heavy forces can close. Had the 9th Motorized Division been retained, it would have offered CINCCENT during DESERT SHIELD an option with a closure rate close to that of an airborne division and capability far greater than a "speed bump" after arrival. Today, technology insertion would make the division even more lethal. Moreover,

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<sup>3</sup> John A. Wickham, Jr., *The Motorized Division, A Deployable Strategic Response to a Heavy Threat*, p. i.

relative to light forces, a motorized division is better suited to mobile operations in conjunction with armored and mechanized units for the offensive and subsequent stabilization phases of an MTW.

By definition, middleweight units lack the armor protection and firepower inherent in heavy forces, and so are less capable in head-to-head offensive operations. Accordingly, a motorized division must be employed within its capabilities. This limits to an extent the missions it can undertake at the high end of the conflict spectrum.

*Flexibility/Fungibility.* Including a motorized division in the AC force structure makes more Army units useful across a broader mission range. Mission/capability analysis reveals that, in addition to offering MTW capability greater than light infantry, motorized infantry is generally more desirable than heavy forces for less-demanding missions ranging from counterinsurgency to peacekeeping and humanitarian operations. Moreover, because it is 100 percent air-transportable and has a smaller logistics tail than heavy forces, motorized infantry is far more flexible and amenable to extraction from SSC operations and rapid insertion into an MTW, or extraction from one MTW and rapid insertion into another.

*Tailorability/Modularity.* The design of the motorized division<sup>4</sup> improves neither internal tailorability relative to other division structures nor modularity. As part of a larger force, however, it adds a dimension heretofore absent—one that would allow better tailoring of a corps package or Joint Task Force (JTF) to specific mission requirements.

*Mobility, Strategic and Tactical.* The motorized division was designed specifically to bridge the mobility gap between heavy and light forces.<sup>5</sup> It is the only Army division with both strategic and tactical mobility.<sup>6</sup> Adding this capability in lieu of a strategically hard-to-deploy heavy division clearly would improve the Army's strategic responsiveness without sacrificing tactical mobility.

*Capability vs. Asymmetrical Threats.* The motorized division improves U.S. capability to counter two specific asymmetrical threats—exploitation of strategic distance

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<sup>4</sup> Glen R. Hawkins and James J. Carafano, *Prelude to Army XXI, U.S. Army Division Design Initiatives and Experiments 1917–1995*, p. C-18

<sup>5</sup> Wickham, *The Motorized Division*, p. 5-6.

<sup>6</sup> The Airmobile Division requires 1,222 C-141B and 82 C-5 sorties plus commercial airlift for nearly 8,000 soldiers to deploy by air, according to MTMCTEA Report 0A90-4F22, *Deployment Planning Guide*, August 1991. Additionally, it is not 100 percent tactically mobile.

and exploitation of urban terrain. Strategic distance gives an opponent the possibility of seizing key terrain or access points before the full weight of U.S. combat power can be deployed. Rapid deployment of the motorized division can serve as a deterrent or lethal blocking force to prevent exploitation of this asymmetry. Urban terrain is anathema for heavy forces since it negates most of their strengths. The lighter vehicles and greater infantry strength in the motorized division make it far better suited than armor or mechanized infantry for urban operations.

*Command and Control.* The Army-approved motorized division structure neither flattens nor streamlines tactical headquarters. However, the design around tactical vehicles makes it feasible to introduce the digital command and control package validated in recent advanced warfighting experiments (AWE) with heavy forces. Introduction of this technology could then result in a flatter command structure.

*Joint/Combined Operations.* This option does not address the joint/combined operations issue.

*Readiness.* During the conversion period, the readiness of one heavy division would be reduced significantly. After transition costs are absorbed, the motorized division requires less manpower and has significantly lower annual operating costs than a heavy division. These savings could be applied to alleviate readiness shortfalls elsewhere in the force.

*PERSTEMPO.* The conversion of a heavy division to motorized configuration would increase the proportion of the AC force best suited for the widest range of missions, in particular the smaller-scale contingency operations that are predicted to pose the greatest demand. This would spread the burden of operations other than war across a wider base (five divisions rather than four), reducing somewhat the pressure on these units.

*Cost.* Implementation costs of this option include procurement of off-the-shelf wheeled combat systems and vehicles<sup>7</sup> to replace the tanks, infantry fighting vehicles, self-propelled artillery, and other tracked vehicles of the heavy division. These costs would be offset by the savings from avoided costs of upgrading these same systems. Little

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<sup>7</sup> The study assumes equipment identical to or better than that in the 9<sup>th</sup> Mtz Div in the late 1980s is available today. This includes HMMWV variants armed with TOW, MK 19 GMG, and other weapons. Alternatively selected divisional units might be equipped with the LAV III which is more expensive but more capable.

additional procurement is required since the majority of the remaining heavy division equipment would be required by its successor. After conversion, the lower operating costs of the motorized division would save \$58 million annually.

*AC Manpower.* Relative to a mechanized infantry division of 17,447 soldiers, the motorized division requires 14,059—an AC manpower reduction of 3,388 spaces. Moreover, there are additional savings in CS and CSS required above division level. Using the historical division slice ratio of 2 to 1,<sup>8</sup> more than 6,000 CS and CSS spaces at corps and above could be saved. Approximately a third of these would be AC and the remainder RC. This manpower can be applied to correct shortfalls elsewhere in the force. The anticipated Conservative Heavy Division (CHD) would already have implemented some these savings. Compared with a standard heavy division, a CHD converted to motorized configuration generates modest savings—1,013 spaces, with 2,000 additional spaces at corps and above.

*Capital Equipment.* A significant drawback of this option is that it requires procurement of new off-the-shelf wheeled combat and support vehicle systems. These systems are less costly to procure and operate than the tracked systems they replace, but they entail new capital investment. More than 1,000 new vehicles (HMMWV variants alone, or in combination with LAV) are required. However, the majority of the remaining divisional equipment can be redistributed internally to meet the TOE requirements of the new structure.

*Utilization of RC.* This option places greater reliance on the heavy ARNG eSBs that would back up the remaining AC heavy divisions in MTWs. In addition, it potentially frees 4,000 RC CS and CSS spaces for reallocation against other requirements.

*Implementation Timeframe.* Since new equipment is required, procurement lead times would pace the conversion from heavy to motorized division. But since the equipment is off-the-shelf and in production, lead time to begin the transition could be as short as a year or less from the decision to make the conversion. The equipment transition itself could be completed in a year if the equipment selected were available in that timeframe. Some additional training time would be required after the completion of the equipment transition.

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<sup>8</sup> John C. F. Tillson et al., *Review of the Army Process for Determining Force Structure Requirements*, p. A-34.

*Complexity.* This option is not simple to execute. Reintroducing the motorized division would, in addition to generating the headaches of equipment turn-in, procurement, and fielding, add a unique organization and capability into the force that would permeate throughout the Army, especially the Training and Doctrine Command (TRADOC). Standing up and sustaining this one-of-a-kind unit would require dusting off the archived doctrine and training programs of the 9th Division. The same problems of orphanhood that doomed the 9th Division would reoccur unless they were identified and resolved at the outset.

## **SUMMARY/CONCLUSIONS**

Converting a heavy division to motorized configuration would fill a capability gap that undermines the strategic relevance of Army forces. The unique combination of strategic and tactical mobility, coupled with increased lethality and relevance for most smaller-scale contingency operations, would make the motorized division well suited for future requirements. Moreover, it would save manpower and money. The main disadvantages would be the initial procurement costs, the complexities introduced with another one-of-a-kind unit, and the slight overall degradation of MTW offensive capability.

## **Appendix J**

### **CONVERT AN ACTIVE LIGHT DIVISION TO MOTORIZED DIVISION CONFIGURATION**

#### **DESCRIPTION**

This option examines the conversion of an Active component (AC) light infantry division to a motorized configuration. For purposes of evaluation, the study compares the current light infantry division of 11,681 soldiers (appendix A, figure A-3) with the previously approved motorized division structure of 14,059 men (figure I-1). Appendix I provides additional background on the motorized division.

#### **RATIONALE**

The motorized division is both strategically and tactically mobile. Thus it fills the gap between the strategically immobile heavy division and the tactically immobile light division. Superior mobility, versatility, and flexibility are the strengths that offer CINCs a unit that can get into theater quickly and accomplish a wide range of missions, including major theater war (MTW), immediately upon closure. Mission/capability analysis indicates that forces in the middleweight category are effective across a wider portion of the mission spectrum than are light forces, especially at the high end. In the middleweight category, motorized infantry optimizes mission capability from humanitarian operations to MTW. In particular, the mobility and antiarmor lethality of motorized forces makes them far more versatile and effective than light units in MTW, without sacrificing strategic mobility by air. Hence, converting one light division to motorized configuration would improve MTW capability without significantly impacting the proportion of the force available for smaller-scale contingency operations. The motorized division is larger and more equipment-intensive than the light division, however, raising potential manpower, investment, and sustainment cost issues. In addition, although strategically

mobile by air, the motorized division was designed to take about 1,200 C-141B sorties to deploy, compared with roughly 550 for a light division.<sup>1</sup>

## EVALUATION

*Major Theater War Capability.* Converting a light division to motorized would clearly enhance the core warfighting capabilities of the AC force structure. It would add the advantages of the motorized division but not at the cost of a heavy division, as in Annex I. Moreover, because of the inherent limitations of light divisions, CINCs have traditionally been reluctant to include them in MTW plans if other units are available.<sup>2</sup> This option would offer planners a unique combination of rapid projection, mobility, and lethality—a combination that does not now exist—which could be decisive in deterring conflict or in preventing the loss of critical territory or resources during the early stages of an MTW, before heavy forces can close.

*Flexibility/Fungibility.* Including a motorized division in the AC force structure makes a larger portion of it relevant across a wider mission spectrum. Mission/capability analysis reveals that in addition to offering enhanced MTW capability, motorized infantry is generally as effective as light infantry for most less demanding missions, ranging from counterinsurgency to peace operations and humanitarian operations. Light infantry units do have the edge over motorized in urban terrain. In addition, motorized forces are, like light units, more amenable than heavy forces to rapid extraction from SSC operations and redeployment to an MTW.

*Tailorability/Modularity.* The design of the motorized division<sup>3</sup> improves neither internal tailorability relative to other divisional structures, nor modularity. As part of a larger force, however, it adds a dimension—heretofore absent—that would allow better tailoring of a corps package or Joint Task Force (JTF) to specific mission requirements.

*Mobility, Strategic and Tactical.* The motorized division was designed specifically to bridge the mobility gap between heavy and light forces. It is the only Army

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<sup>1</sup> Originally the light division was designed to fit into 500 C-141B sorties. When the TOE was approved, the number had grown to 550. By 1991, average aircraft load capacity was reduced because of wear and tear on the fleet (caused primarily by the Gulf War). This increased the number of sorties required, and some weight growth occurred as well. No comparable figures are available for the motorized division. See *Deployment Planning Guide*, MTMCTEA Report 0A90-4F22, August 1991.

<sup>2</sup> But not airborne or air assault divisions.

<sup>3</sup> Glen R. Hawkins and James J. Carafano, *Prelude to Army XXI, US Army Division Design Initiatives and Experiments 1917–1995*, p. C-18



division with both strategic and tactical mobility. Adding this capability in lieu of a division with poor tactical and operational mobility clearly would improve the Army's tactical effectiveness, without sacrificing strategic mobility.

*Capability vs. Asymmetrical Threats.* Relative to the light division, the motorized division offers improvement in countering the asymmetrical threat of strategic distance but is somewhat less effective in urban terrain. While taking longer to deploy, it is far more mobile and lethal after arrival. Thus, in most cases it would be a better strategic counter to block a quick thrust. In urban terrain, it has somewhat fewer dismounted infantrymen but considerably more firepower than a light division.

*Command and Control.* The Army-approved motorized division structure neither flattens nor streamlines tactical headquarters. However, the design around tactical vehicles makes it more feasible to introduce digital command and control systems validated in the Army's advanced warfighting experiments with heavy forces. Insertion of this technology could then result in a flatter command structure. This would be more difficult to achieve in a light division.

*Joint/Combined Operations.* This option does not address the joint/combined operations issue.

*Readiness.* During the conversion period, elements of one light division would be at reduced readiness. Also, since the successor unit would require more manpower and would have higher annual operating costs, this option, absent the necessary increase in funding, would exacerbate readiness shortfalls elsewhere in the force.

*PERSTEMPO.* Conversion of a light division to motorized configuration would not spread the burden of SSC operations more broadly. In fact, the conversion itself would increase the number of events that fall disproportionately on the lighter forces.

*Cost.* Implementation costs of this option include procurement of AH-64 helicopters and off-the-shelf wheeled combat systems and vehicles (HMMWVs and possibly LAVs). Estimated cost is \$1.2 billion. After conversion, the higher operating costs of the motorized division would add \$28 million to the Army's annual budget.<sup>4</sup>

*AC Manpower.* The motorized division requires 14,059 soldiers—2,378 more than a light division. Additionally, since the motorized division is equipment-intensive, it

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<sup>4</sup> Light division operating costs are \$44 million per year.

will require the addition to the Army force structure of about 4,500 CS and CSS soldiers at corps level and above.

*Capital Equipment.* A significant drawback of this option is that it requires procurement of new off-the-shelf wheeled combat systems. These systems entail new capital investment. In addition, this option requires procurement of 48 Apache helicopters. Otherwise, virtually all the light division's equipment can be used to meet the TOE requirements of the new structure, offsetting otherwise additional costs.

*Utilization of RC.* This option does not improve RC integration. It does add requirements for approximately 3,000 Reserve component CS and CSS spaces.

*Implementation Timeframe.* New equipment lead-times would pace the conversion from light to motorized. Using off-the-shelf equipment could make lead-times relatively short, with conversion taking a year or less, followed by a few months of additional unit training to reach full readiness.

*Complexity.* This option is simpler to execute than conversion of a heavy division. Nevertheless, it is not simple. Unless another unit is also converted, this option adds to the force a unique organization that will require major institutional support to produce and validate doctrine for its employment and training programs for its special equipment. It will give the Army four one-of-a-kind units,<sup>5</sup> further complicating the TRADOC tasks.

## SUMMARY/CONCLUSIONS

Converting a light division to motorized configuration fills a capability gap that currently undermines the strategic relevance of Army forces. The mobility, lethality, and versatility of the motorized division make it well suited for future requirements and offer distinct advantages over the light division over a wider portion of the mission spectrum—especially for MTW. This option is costly in both manpower and money, however, and would create two one-of-a-kind units: the newly created motorized division and the sole remaining light division.

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<sup>5</sup> Motorized/airmobile/airborne/light.

## **Appendix K**

### **CONVERT THE 2D ARMORED CAVALRY REGIMENT (LIGHT) TO TRANSITIONAL MOTORIZED CONFIGURATION**

#### **DESCRIPTION**

Conceptually this is a scaled-down variation of the options in appendixes I and J. It envisions an organization about one-third the size of a motorized division but organized and equipped similarly to create a smaller, brigade-sized package with all the advantages of middleweight units. The 2d Armored Cavalry Regiment as currently constituted (appendix A, figure A-7) is a light armored cavalry regiment (ACR-L) with 3,812 soldiers equipped with HMMWV, towed 155mm artillery, and OH-58D helicopters. With modifications to increase the infantry and antiarmor capability, the ACR-L can be configured along the lines of the motorized division TOE (appendix I, figure I-1) while retaining its cavalry character. Two sub-options, one a reinforced motorized cavalry regiment and the other a separate motorized brigade, are outlined for purposes of illustration.

In the first sub-option, ACR-L infantry strength would be increased by adding a reinforced<sup>1</sup> combined arms battalion, light (CAB-L) of 705 men. The CAB-L includes 24 TOW [tube-launched, optically sighted, wire-guided] weapons mounted in High-Mobility Multipurpose Wheeled Vehicles (HMMWVs). Substituting 16 AH-64s for half the OH-58Ds in the aviation squadron would increase antiarmor systems further. Cavalry squadron firepower would be increased by adding one additional MK-19 40mm GMG to each scout platoon. Assuming modest increases in the regimental support squadron, this would increase the regiment's strength to around 4,700 (figure K-1).

The second illustrative sub-option would substitute two CAB-Ls for two of the cavalry squadrons and would add a combined arms battalion, heavy (CAB-H), which has 44 TOWs. The aviation adjustments would be the same. It also would include a towed

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<sup>1</sup> CAB-L TOE strength is 576, with two motorized infantry companies and one TOW company. An additional motorized infantry company adds 129 soldiers for a total of 705. This would permit reinforcing each ground cavalry squadron with an infantry company, if required.

155mm artillery battalion (the remaining squadron would lose its battery). This more closely resembles a separate brigade, but it retains a strong cavalry component. The strength also would be about 4,700 (figure K-2).

The first illustrative option retains the cavalry regiment in the force structure with added capabilities. The second is more fungible across the mission spectrum due to its higher infantry content. Either organization could be airlifted in about 400 C-141B sorties. The study does not argue the merits of either; rather, it examines the contribution a middleweight force of this size could make in meeting requirements across the mission spectrum.

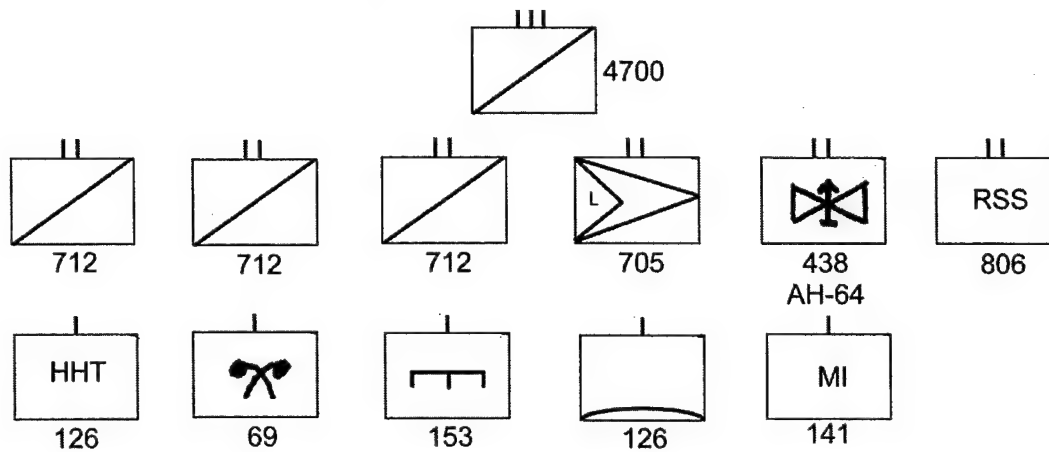
## **RATIONALE**

The motorized cavalry regiment/brigade is highly mobile, both strategically and tactically. On a smaller scale than either of the two preceding options, it fills the gap between the strategically immobile heavy forces and the tactically immobile light forces. A unit smaller than a division—with superior mobility, versatility, flexibility, and antiarmor lethality that can get into theater quickly and accomplish a wide range of missions, including major theater war (MTW) immediately upon closure—would be extremely useful in a crisis. It would be ideal as a flexible deterrent option, alone or in conjunction with elements from other Services. It could deter or fight independently as a screening force while larger units deploy.<sup>2</sup> Furthermore, mission/capability analysis indicates that forces in the middleweight category are effective across a wider portion of the mission spectrum than either heavy or light. Either of the illustrative variants would appear to capitalize on the middleweight mission capability across the spectrum, from humanitarian operations to MTW. Thus, the motorized regiment/brigade model outlined above could be effectively employed in virtually any scenario. Moreover, the motorized regiment/brigade option would be easier and cheaper to implement in the near term than converting either a heavy or a light division. The base for the conversion currently exists in the 2d ACR-L. Either illustrative model would retain much of the existing structure with only weapon systems improvements. The required new equipment is available off the shelf. However, the structure as modified to broaden its mission relevance does require a manpower increase of about 900 soldiers. Additionally, the second illustrative modification of the 2d ACR would reduce the AC Army to a single cavalry regiment.

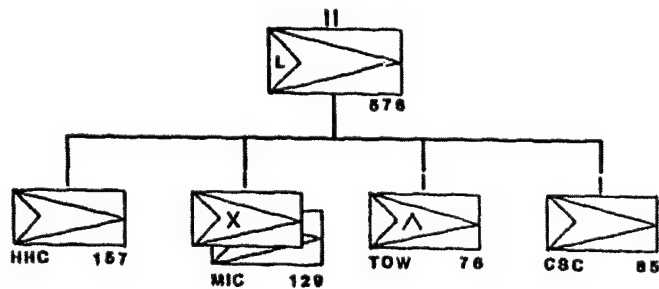
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<sup>2</sup> See John C. F. Tillson, *Building a Crisis Response Force*, for a detailed argument on the value of such a unit.

## MOTORIZED CAVALRY REGIMENT



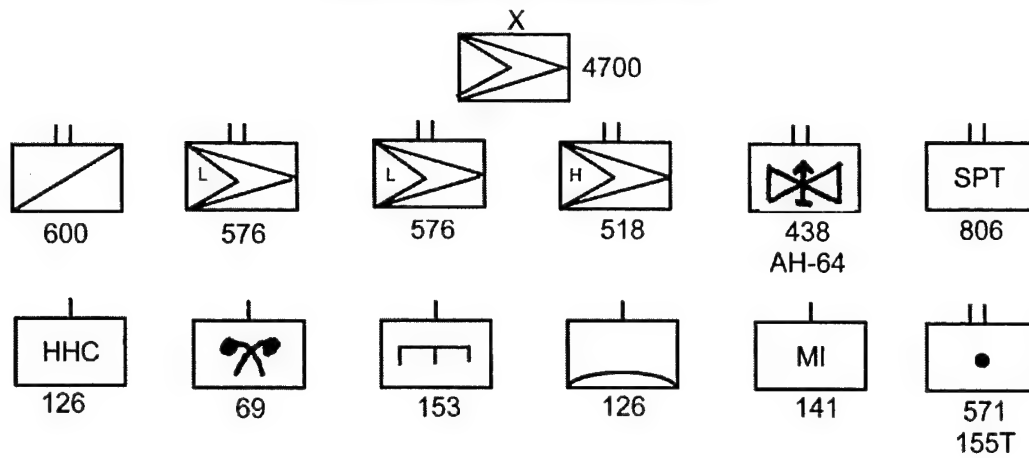
## COMBINED ARMS BATTALION, LIGHT (CAB-L)



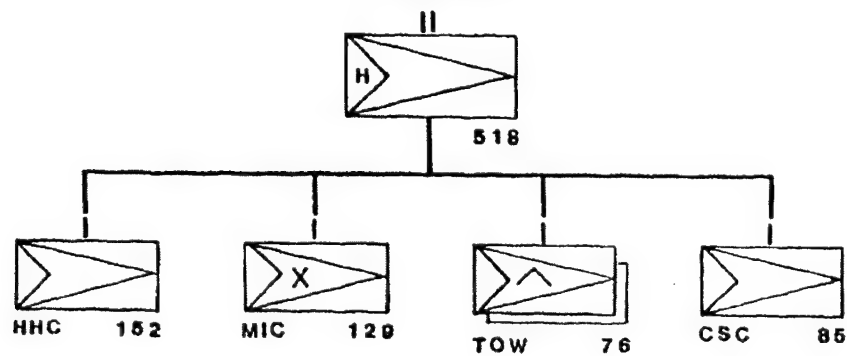
24 - HMMWV TOW  
 75 - MK19 GMG  
 30 - DRAGON  
 8 - MORTARS, 107mm  
 18 - INF SQUADS

Figure K-1. Sub- option I

## MOTORIZED BRIGADE



## INTERIM COMBINED ARMS BATTALION, HEAVY (CAB-H)



44 - HMMWV TOW  
 67 - MK19 GMG  
 15 - DRAGON  
 6 - MORTARS, 107mm  
 9 - INF SQUADS

Figure K-2. Sub-option II

This option is attractive for another reason. The Army intends to "conduct experimentation with advanced concepts and technology to develop a highly lethal, strategically deployable and tactically agile unit."<sup>3</sup> This unit, variously labeled a *battle force group* or a *strike force*, will be about the size of the ACR-L and will be optimized for the full mission spectrum. It will also be deployable within days and capable of deterring aggression or blocking to permit a decisive force to close and other even more ambitious tasks.<sup>4</sup> The experimental unit will be the 2d ACR-L. The time lines for this effort envision the experiment beginning in FY 2002, with implementation thereafter. Thus a capabilities gap will remain well into the next decade. The option outlined here could bridge that gap by introducing much of this potential into the Army force structure now, in a transitional organization as illustrated above. Once fielded, it could be incrementally improved through experimentation and technology insertion.<sup>5</sup> This approach would fill an Army capabilities void with a force that can do the job credibly while an even more capable organization is being developed.

## EVALUATION

*Major Theater War Capability.* Without question, converting the 2d ACR-L to a more capable middleweight force would enhance the core warfighting capability of the Active Army force structure. The combination of rapid projection, high tactical mobility, and lethality—a combination which does not now exist—could be decisive in deterring conflict or in protecting critical terrain as a larger decisive force deploys. Extremely valuable in the early defensive stages of an MTW crisis, the middleweight regiment or brigade would have high utility in subsequent offensive and stabilization phases as well. As outlined, this force would be a valuable addition to Army MTW capability, a more useful option in most situations than lighter forces, and a flexible compliment to heavy divisions when employed together.

*Mission Flexibility/Fungibility.* Either illustrative version of the organization would make the 2d ACR-L useful across a broader mission range, as would any variant in between. Adjustments to the existing ACR-L structure were made for that reason.

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<sup>3</sup> See Michael K. Mehaffey, "Force XXI Process," p. 24; and Sean D. Naylor, "The Future Army Debate Rages On," *Army Times*, 20 April 1998, p. 12.

<sup>4</sup> Mehaffey, Force XXI Process, p. 25.

<sup>5</sup> See Steve Kerin et al., *Task Force Griffin Final Report*, for what such a force could be in 2015

Increases in infantry strength and additional antiarmor systems improve relevance for MTW and for less demanding missions along the spectrum.

*Tailorability/Modularity.* The motorized cavalry regiment/separate brigade has a significant advantage over division-sized formations in both tailorability and modularity. Because it is smaller, it can be packaged more easily with other Army units or other Services' units as a self-contained, multifunctional force. This is ideal for planners designing mission-tailored joint task forces (JTFs). Additionally, as a separate capabilities module, using it in this way is less disruptive to the remainder of the force since it does not involve extracting pieces from a larger organization, thereby reducing its coherence and readiness.

*Mobility, Strategic and Tactical.* Since the 2d ACR is already motorized, this option does nothing to improve strategic or tactical mobility of the force as a whole. However, improvements to the organization make it more capable as the only strategically and tactically mobile middleweight unit in the AC.

*Capability vs. Asymmetrical Threats.* The motorized cavalry regiment/separate motorized brigade improves U.S. capability to counter two specific asymmetrical threats—exploitation of strategic distance and exploitation of urban terrain. Strategic distance gives an opponent the possibility of seizing key terrain or access points before the full weight of U.S. combat power can be deployed. Rapid deployment of the motorized regiment/brigade would serve as a deterrent or lethal blocking force to prevent exploitation of this asymmetry. Urban terrain is anathema for mobile firepower-intensive units since it negates most of their strengths. The adjustments to the ACR-L described would give it greater infantry strength, making it better suited for urban operations than the light ACR as is. In particular, the motorized brigade illustration would have considerably more infantry and would be the most effective in urban operations.

*Command and Control.* The illustrative structures outlined extend the maneuver unit span of control of the existing 2d ACR-L by 25 percent (from four to five), thereby adding combat power without increasing overhead. Additionally, the design around tactical vehicles makes it feasible to introduce the digital command and control package validated in the Army AWE with heavy forces. Introducing this technology could ultimately flatten the command structure even more.



*Joint/Combined Operations.* This option would create a unit that, because of its size and unique capability, often would be a desired addition to a joint force package as part of a JTF. Similarly, it would fit well with allied formations in a combined context.

*Readiness.* During the conversion period, readiness of the 2d ACR-L would be reduced. This would be less an issue in the first illustrative option than the second. Also, since the successor unit would require more manpower and would have slightly higher annual operating costs, this option, absent its own funding, would exacerbate readiness shortfalls elsewhere in the force unless coupled with other offsetting adjustments.

*PERSTEMPO.* Converting the 2d ACR-L as outlined would spread the burden of SSC operations slightly more broadly since it would add one to three motorized infantry battalions to the force. The motorized brigade illustrative option would increase the AC pool of maneuver units optimized for smaller-scale contingencies by close to 8 percent.<sup>6</sup> However, the conversion itself would add to the number of events which fall disproportionately on the lighter force.

*Cost.* Implementation costs of this option include possible procurement of small numbers of off-the-shelf wheeled combat systems and vehicles, and possibly 16 AH-64 helicopters. Estimated cost is \$400 million, some of which could be avoided by using aircraft elsewhere in the force structure or by retaining OH-58Ds. After conversion, the slightly higher operating costs of the motorized cavalry regiment/separate motorized brigade would add \$2 to \$8 million to the Army budget annually.

*AC Manpower.* The motorized regiment/brigade requires 4,700 soldiers—900 more than currently required by the 2d ACR-L. No additional CS/CSS manpower requirements are envisioned above this level.

*Capital Equipment.* Virtually all the existing equipment of the 2d ACR-L could be reallocated within either of the new structure variants outlined. All additional equipment that is required could be provided through redistribution of assets from lower priority units elsewhere within the AC or RC.

*Utilization of RC.* This option does not improve RC integration. However, it could provide a model organization for selected ARNG units, particularly eSBs.

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<sup>6</sup> From 38 airborne/airmobile/light infantry battalions to 41 including 3 new motorized infantry.

*Implementation Timeframe.* This option could be implemented in less than a year if a decision were made to do so. If made a top priority, it could be implemented in 6 months.

*Complexity.* Creating either the enhanced motorized cavalry regiment or the separate motorized brigade would be relatively simple to plan and execute since it would be built around an existing unit similarly organized and already operating most of the required equipment.

## **SUMMARY/CONCLUSIONS**

Converting the 2d ACR-L to transitional motorized configuration would fill a capability gap that undermines the strategic relevance of Army forces. The mobility, lethality, and versatility of the brigade-sized motorized unit make it well suited for future requirements and offer distinct advantages over the current light ACR across a wider portion of the mission spectrum—especially for MTW. The primary disadvantages of this option are the 900 additional soldiers it requires and the problems associated with one-of-a-kind AC units.

## **Appendix L**

### **REDUCE COMPOSITION OF ACTIVE DIVISIONS, POOL ASSETS AT CORPS LEVEL, AND CONVERT SPACES**

#### **DESCRIPTION**

This option examines ways to correct force-mission imbalance by withdrawing selected assets from Active component (AC) divisions, pooling them at corps level in lesser numbers, and converting the saved spaces to a structure that is suited to a broader range of missions. Candidates for withdrawal include air defense and multiple launch rocket system (MLRS) battalions and engineer and aviation brigades, some of whose components would be retained in the AC structure. Units identified would free several thousand AC spaces, depending on the specific options chosen, to remedy existing shortfalls or for conversion to other capabilities.

#### **RATIONALE**

*Air Defense Battalions.* U.S. and allied air power, combined with long-range land- and sea-based air defense missiles, vastly overmatch the air forces of nearly all countries with which the United States might come into armed conflict. It therefore seems feasible to withdraw short-range air defense (SHORAD) battalions from divisions and pool them in lesser numbers at corps. A prudent risk structure would include four AC (one per corps) and eight Army National Guard (ARNG) SHORAD battalions (two additional per corps), permitting a reduction of nine AC SHORAD battalions.

*MLRS Battalions.* MLRS is a weapon suited for major theater war (MTW) with little utility in smaller-scale contingencies. Six battalions are currently assigned to AC heavy divisions and 12 non-divisional battalions are assigned at corps level. If withdrawn from divisions and pooled at corps, six AC battalions of two batteries each could be converted to four non-divisional battalions of three batteries each, eliminating two headquarters batteries.

*Engineer Brigades.* The Army plans to inactivate engineer brigade headquarters companies and one combat engineer battalion in each heavy division, leaving heavy

divisions with two combat engineer battalions each. (Light divisions have one and heavy divisions had only one until 1993.) Combat engineers are needed in varying numbers for tasks throughout a corps, making it prudent to retain one battalion (four combat engineer companies) in each division while pooling the remainder (four battalions of three companies each) at corps, where they can be massed for missions of highest priority. Existing ARNG combat engineer battalions could assume that mission.

*Aviation Brigades.* All divisions have aviation brigades, although their composition varies widely. This practice does with helicopters what France did with tanks in 1940: It dissipates them across the force, making them difficult to mass in support of a corps' main effort. By inactivating division aviation brigade headquarters companies and transferring all attack helicopter (AH-64), assault helicopter (UH-60), cargo helicopter (CH-47), and aviation maintenance battalions and companies to corps, 10 AC division aviation brigade headquarters companies, totaling roughly 1,000 spaces, could be converted to other uses. All divisions would retain a command aviation company and two air cavalry troops that would be supported on an area basis by corps aviation maintenance battalions.

## EVALUATION

*Major Theater War Capability.* None of the above options except the inactivation of nine SHORAD battalions represents a loss of combat power. Because likely opponents have few capable attack aircraft and could expect to get few sorties through U.S. and allied fighter and long-range missile barriers, their assets are more likely to be used against deeper targets such as ports and airfields that offer higher payoff. Consequently, eliminating divisional SHORAD battalions constitutes prudent risk. Converting some AC MLRS and combat engineer structure to ARNG structure through conversion of less capable existing units represents no net loss of capability and no overall change in AC or ARNG strength. It would, however, permit conversion of substantial later-deploying AC units to a structure that is more useful for smaller-scale contingencies, while also enhancing the Army's MTW capabilities, particularly against asymmetric threats.

*Flexibility/Fungibility.* Pooling MLRS battalions, attack helicopter battalions, assault helicopter battalions and companies, and combat engineer battalions at corps level permits their massed use to satisfy the most pressing requirements or highest priorities and assures that these assets are, as artillery has always proclaimed itself, "never in

reserve.” Leaving each division with dedicated assets, regardless of its mission, does not permit scarce and highly specialized capabilities to be used to maximum advantage. In the Gulf War, 14 attack helicopter battalions were dissipated all across the force, with each division retaining dedicated assets, regardless of what was happening elsewhere. Massing 14 attack battalions against the Republican Guard might have assured that none would escape. Similarly, assault helicopter companies were distributed across the force, leaving the 82d Airborne Division to move mainly by ground transportation. If massed under corps control, those aviation assets could have enabled the 82d and 101st Divisions together to cut off the Scud belt in Western Iraq and sever Iraq’s only link to the Jordanian port of Aqaba. In short, creating the ability to shift scarce, highly effective assets to the point where they are most needed would enhance the Army’s mission capabilities.

*Tailorability/Modularity.* This is another way of characterizing the flexibility described above. If assets are pooled at corps level, Division X can be mission tailored with a richer mix of assets than Division Y, which has a less demanding mission. When a division’s mission changes, supporting assets can be shifted accordingly. By creating a larger pool of fungible resources, the Army can better tailor corps aviation, artillery, engineer, and air defense brigades with force modules requisite to the mission.

*Mobility, Strategic and Tactical.* The changes suggested above would have no overall effect on strategic or tactical mobility since the number of assets to be moved would remain roughly the same. It would, however, shorten a division’s closure time for strategic deployments and its time past a point during tactical movements. Streamlining would also make divisions less cumbersome and easier to handle, making higher echelons responsible for their support and associated movement planning.

*Capability vs. Asymmetrical Threats.* The most likely forms of asymmetry to be employed by adversaries of the United States are relatively cheap, effective, and hard for air power to find and destroy. Important facilities and military forces can be burrowed underground and hidden among the innocent or at shrines of international importance to shield them from U.S. aerial surveillance and firepower. Adversaries can be expected to use mass casualty chemical, biological, and radiological (CBR) weapons in terrorist attacks or with missile attacks to intimidate U.S. allies, break up coalitions, or disrupt U.S. reinforcement. They might also use cyber or commando attacks on U.S. and allied information infrastructures to disrupt deployments or coalition cohesion. Many of these asymmetrical means can be employed by domestic terrorists or criminal cartels as well as

by hostile governments. Countering these asymmetric threats will require new capabilities quite different from those optimized to fight force-on-force, including highly trained specialists in counterterrorism, psychological operations, electronic warfare, CBR reconnaissance, covert long-range reconnaissance and surveillance, and Ranger-like direct action. Such forces would need communications linking them to a cadre of expert military and civilian specialists that know the details of a mass casualty weapons research or production facility and can advise direct action units accordingly. As noted above, this option could free as many as 12,000 AC spaces to eliminate existing over-structure shortfalls and permit conversion to other capabilities needed against asymmetric threats.

*Command and Control.* Pooling more assets at corps level streamlines overall command and control by assigning more assets to existing corps-level brigades, increasing the size of some types of battalions, and eliminating comparable division-level headquarters structure.

*Joint/Combined Operations.* In general, this option has little impact on joint and combined operations. It could, however, make it easier to use selected Army assets to support allies and sister Services. With aviation, artillery, engineer, and air defense capabilities pooled at corps level, a U.S. corps commander could tailor support to an attached allied division as easily as to a U.S. division.

*Readiness.* Where AC structure would be transferred to the ARNG, there would be a net reduction in readiness. The impact is likely to be insignificant for two reasons: (1) the transferred structure could be the latest deploying of its type, (2) the ARNG has demonstrated significant competence in those skills, particularly engineering and field artillery.

*PERSTEMPO.* Using the manpower savings to create more special operations forces in the AC would reduce PERSTEMPO strains on the most stressed segment of the force by taking advantage of reductions in the least stressed segments of the force. However, pooling selected combat and combat support assets at corps level could conceivably increase PERSTEMPO for members of units in the pool, as they would be in demand for training exercises of more than one division.

*Cost.* Inactivating nine SHORAD battalions would free almost 5,500 spaces and save \$38 million in annual operating costs.

Inactivating two MLRS battalion Headquarters and Service Batteries would free 174 spaces and save almost \$1 million in annual operating costs.

Inactivating the headquarters detachment and one line battalion in heavy divisions would save more than 2,000 personnel spaces and almost \$5 million in annual operating costs.

Inactivating the aviation brigade headquarters companies in all 10 active divisions would free more than 1,100 personnel spaces and almost \$5 million in annual operating costs.

*AC Manpower.* This option has no impact on end strength, but it would change the distribution of specialties in the active component.

*Capital Equipment.* This option would generate reductions in 155mm towed howitzers (four battalions and associated support equipment), SHORAD (nine battalions and associated support equipment), and combat engineer equipment (four battalion equivalents). Those would be offset by increased investment in specialized communications, electronic warfare equipment, psychological operations equipment, CBR reconnaissance equipment, and special operations helicopters.

*Utilization of RC.* This option would increase the ARNG's integration into corps contingency plans, reduce repetitive call-ups of psychological warfare specialties found mainly in the Reserve component, and increase the training interaction of supported AC and supporting ARNG units.

*Implementation Time Frame.* Since no new types of equipment are required and a lot of existing equipment (wheeled vehicles, radios, small arms, chemical defense equipment, protective vests, helmets, etc.) would be available for use by the new units, the conversion process could be completed in perhaps as little as 2 to 3 years. Volunteers probably could be found in ample numbers in the AC to fill the new structure, but the training of some specialties would take a year or more.

*Complexity.* This option would be fairly easy to execute since no types of units are being created in either the AC or RC. The most complex aspect would be struggles among the Army's internal branch constituencies. "Losing" branches would fight to retain force structure and their share of command billets. Some specialties would be substantially reduced in the AC, leaving careers dead-ended unless personnel were retrained in new specialties.

## **SUMMARY/CONCLUSIONS**

This option would—

- Offer the Army greater mission flexibility.
- Make a greater proportion of the AC relevant for the Army's day-to-day missions.
- Expand the interdependence of the Active Army and the ARNG, giving the latter more relevant missions it has proven it can handle well.
- Reduce the Army's O&M costs.
- Provide a better mix of capabilities for dealing with likely asymmetric warfare options of rogue regimes, crime cartels, and international and domestic terrorists.



**Appendix M**  
**REMOVE AN AC FIELD ARTILLERY BRIGADE, AND/OR**  
**AVIATION BRIGADE, AND/OR ENGINEER GROUP FROM THE**  
**CORPS-LEVEL FORCE, OR CONVERT TO RC**

**DESCRIPTION**

This option considers the possibility of alleviating a significant portion of the Army's Active component (AC) "spaces-versus-faces" (required versus authorized) shortfall by removing corps-level brigades or the equivalent from the AC. The total AC manpower potentially derived from this option would be over 5,500 spaces.

The AC corps-level artillery structure includes 6 field artillery (FA) brigades and 18 battalions (12 are multiple-launch rocket system [MLRS], three 155mm self-propelled, two 155mm towed and one 155mm towed, airborne). This AC structure is backed up by 17 Army National Guard (ARNG) FA brigades with 49 battalions (including 10 MLRS). For purposes of illustration a notional AC brigade with three battalions (one MLRS, one 155mm self-propelled, and one 155mm towed) would require more than 1,600 spaces.<sup>1</sup> Assuming at least an equal number of combat service support (CSS) soldiers would be required to support this brigade, a third of whom would also be AC, an additional 530 AC spaces could be saved for a total of 2,130 if this brigade were converted to ARNG or removed from the force entirely.

The AC corps-level aviation structure includes 3 brigades with varying mixes of flying units comprising 6 AH-64 battalions, 2 command aviation battalions, and 11 aviation companies. The remainder of the corps aviation structure—including 5 AH-64 battalions and 14 assault and support battalions—is in the RC, primarily the ARNG. Given the already large concentration of corps aviation in the RC, only small reductions

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<sup>1</sup> With this composition the battalion strength would average just under 500 (towed, 575; SP, 492; MLRS, 423). Selection of units to be converted would be based on contingency plans.

in the AC appear feasible. If one AH-64 regiment of two battalions, one CH-47 company, and a small maintenance increment were converted to ARNG, approximately 1,050 AC spaces would be saved.

The AC corps-level engineer structure includes 2 brigades, 2 groups, and 7 battalions. The RC engineer structure includes 2 brigades, 5 groups, and 29 battalions. Again, the already large RC engineer structure limits the number of AC units that might prudently be converted. However, if both group headquarters and three battalions (one combat heavy, one wheeled, and one combat engineer mechanized<sup>2</sup>) were removed from the AC, approximately 1,790 spaces would be saved. Assuming a proportional CSS cut, an additional 590 AC spaces could be saved for a total of about 2,380.

## **RATIONALE**

One way to correct the Army's AC operational forces over-structure problem is to reduce those forces or their combat support by the amount of the shortfall.<sup>3</sup> The options discussed in earlier appendixes focused primarily on divisional structure and missions, while this option examines another part of the structure. In some cases, earlier options surfaced attractive ideas that would exacerbate the existing over-structure of about 5,000 spaces. Accordingly, identification of possible additional bill-payers is required even though some of the earlier options offer savings.

In the case of corps artillery, a reduction of the AC structure from 18 to 15 battalions does not appear to create undue risk. Each AC division would still have its own organic artillery and the remaining AC corps structure could allocate one FA brigade to support each of the five divisions in the first MTW. This would permit activation and post-mobilization training of additional required FA brigades from the massive ARNG artillery structure to augment the corps committed to the first MTW and to prepare for other possible contingencies, including a second MTW. The ability of the ARNG to effectively accomplish artillery tasks after relatively short post-mobilization training was proven during the Gulf War and is widely acknowledged. As increasingly lethal and accurate artillery weapons are fielded, it is fair to ask whether fewer units could accomplish the fire support mission,<sup>4</sup> especially when augmented with fires from other

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<sup>2</sup> This composition is notional.

<sup>3</sup> Follow-on phases of this study will examine possible reductions in CSS, headquarters, and the institutional Army.

<sup>4</sup> See Scott R. Gourley, "The Crusader Advanced Field Artillery System," *Army*, June 1998, pp. 53–54.

Services.<sup>5</sup> Mission/capability analysis indicates that the loss of these units would not impact SSC capability. Indeed, the spaces saved by reducing the over-structure shortfall could improve manning levels in the units most likely to be committed to SSC.

The corps-level AC aviation structure already is austere. The AC reductions envisioned are assumed in corps that would deploy to the second of two MTWs. In the case of AH-64s, two regiments of two battalions each would remain in the AC structure to support the first two deploying corps. Seven additional ARNG battalions would augment those, as well as the two corps designated to the second MTW. Similarly, one CH-47 company would convert to ARNG. This would leave 2 AC heavy helicopter companies to support each of the first 2 deploying corps, with 11 additional ARNG heavy companies to augment or support the remaining two corps. As routinely demonstrated by the Air Force, RC aviation units can be maintained in a high state of readiness. Aviation is more expensive to maintain in the RC than are other types of units, but it is less expensive in the RC than in the AC. Generally, ARNG aviation units are able to retain pilots and high-skill personnel, as well as maintain required flying and maintenance standards. Already, they are called upon, often, to augment AC units on an as-needed basis. If the converted units were collocated with AC units, near seamless integration with the AC upon activation is feasible. These conversions would have minimal impact on MTW capability and no impact on responsiveness to SSC.

The engineer structure at corps level exists to support divisions and to perform other corps tasks. Heavy divisions currently have organic engineer brigades that are augmented as needed from corps, but this divisional structure may soon be reduced. This pending decision may transfer one or more battalions from division to corps. Independent of that decision, however, the corps engineer reductions outlined above would leave four AC corps level battalions for the two engineer brigades associated with the two corps deploying to the first MTW. This AC structure would be augmented in a crisis by up to seven RC group headquarters and 32 corps engineer battalions. Given the already robust engineer structure in divisions and the proven ability of RC engineer units to perform corps-level tasks, this should be sufficient. However, it would require maintaining selected RC battalions at readiness levels sufficient to meet deployment schedules. Some

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<sup>5</sup> See John C. F. Tillson et al., *Review of the Army Process for Determining Force Structure Requirements*, p. 25. It is puzzling that after the Cold War ended, and with it the need to counter the large Warsaw Pact artillery forces, the Army decided its corps artillery support to divisions facing less capable foes should increase by 50 percent.

engineer units would have to deploy well before ARNG enhanced Separate Brigades (eSBs) and would require equivalent or better resourcing. Provided these readiness enhancements are feasible, these reductions would have minimal impact on MTW or SSC readiness.

## EVALUATION

*Major Theater War Capability.* Since these reductions are intended to correct an over-structure problem, presumably the readiness of the combat units that could consequently be manned at higher levels will improve. This will improve MTW capability overall. The corps-level artillery, aviation, and engineer capability for the first MTW would be little affected by this option. Provided timely decisions were made to activate needed RC units to augment the first MTW and prepare for a possible second, readiness for the second of two MTWs should be adequate, especially since the currently under-manned combat divisions will be better prepared.

*Mission Flexibility/Fungibility.* This option does not improve the flexibility or fungibility of the units involved. However, improving the readiness of divisions earmarked for the second MTW also makes them better prepared for SSC.

*Tailorability/Modularity.* This option does not improve the tailorability of units.

*Mobility, Strategic and Tactical.* This option does not affect mobility.

*Capability vs. Asymmetrical Threats.* This option does not affect asymmetrical threat capability.

*Command and Control.* This option has no impact on command and control.

*Joint/Combined Operations.* This option does not address joint or combined operations.

*Readiness.* The principal argument in support of this option is the need to correct existing over-structure of at least 5,000 spaces. The readiness of units now authorized fewer soldiers than they require in wartime will improve as the imbalance is fixed.

*PERSTEMPO.* This option would have little impact on PERSTEMPO, as most of the units identified are not of the type normally over-committed. The exception is AH-64 units, which have had problems recently, primarily due to Bosnia. Presumably, this problem can be managed over time by increased reliance on RC augmentation, much as the Air Force does routinely.

*Cost.* Minor costs would be incurred as the units are converted to RC or removed from the structure. After conversion or removal there will be significant savings. In the artillery example, conversion to RC would save \$5 million per year in annual operating costs. Removing this brigade from the force entirely would save nearly \$12 million per year. Converting the outlined corps-level aviation structure to RC would save \$4 million per year. Converting the engineer groups and battalions to RC would save about \$6 million per year. CSS savings combined would be about \$4 million per year.

*AC Manpower.* This option would eliminate a significant over-structure problem. It would allow reallocation of more 5,500 AC spaces to units whose authorized strength is currently less than what they require for MTW operations.

*Capitol Equipment.* The option includes no equipment costs. All equipment of the affected units would be transferred to the RC or returned to war stocks.

*Utilization of RC.* This option capitalizes on the proven capability of the RC to perform the corps-level artillery, aviation, and engineer missions. It would transfer increased responsibility in each capability area to the RC. Because of the increased reliance on the RC, both for augmentation to the first MTW and as the principal source of units for a second MTW, selected RC units of each type must be resourced at a high readiness level.

*Implementation Timeframe.* Implementation could begin immediately and be executed within a year for units being inactivated. For those units being replaced by RC units, phasing the transfer of responsibility to an RC organization—which has been given the time and resources to raise its readiness to a level higher than previously required—will take longer.

*Complexity.* Conversion from AC to RC or inactivation is simple in concept. Planning the transfer of responsibility so there is no gap in structure and/or readiness is somewhat more difficult and requires painstakingly detailed planning.

## SUMMARY/CONCLUSIONS

This option outlines a way to address the Army's over-structure problem or to offset increases in structure required by other options. It trims AC corps-level structure at the margin without significant impact on capability for the first MTW. If the AC structure is cut, increased resourcing for selected RC units will be required to offset the reductions and ensure timely availability of the replacement RC units.

## **Appendix N**

### **GLOSSARY**

AAN	Army After Next
AC	Active Component
ACE	Allied Command Europe
ACR-L	Armored Cavalry Regiment (Light)
ARNG	Army National Guard
AWE	Advanced Warfighting Experiment
BAOR	British Army of the Rhine
BUR	Bottom-Up Review
CA	Civil Affairs
CAB-H	Combined Arms Battalion, Heavy
CAB-L	Combined Arms Battalion, Light
CBR	Chemical, Biological, and Radiological
CHD	Conservative Heavy Division
CINC	Commander in Chief
CONUS	Continental United States
CORM	Commission on Roles and Missions of the Armed Forces
CS	Combat Support
CSA	Chief of Staff of the Army
CSS	Combat Service Support
DEPTempo	Deployment Tempo—the time units spend away from home station
DoD	Department of Defense
DPG	Defense Planning Guidance
eSB	Enhanced Separate Brigade
FA	Field Artillery
FYDP	Future Years Defense Program
GAO	General Accounting Office
GMFP	Global Military Force Policy

GNFPP	Global Naval Force Presence Policy
HDA	High Demand Assets
HMMWV	High-Mobility Multipurpose Wheeled Vehicle
IFOR	Implementation Force
IRR	Individual Ready Reserve
JMRR	Joint Monthly Readiness Review
JTF	Joint Task Force
KATUSA	Korean Augmentation to the United States Army
LAV	Light Armored Vehicle
LDHD	Low Density/High Demand
LMSR	Large, Medium Speed Roll-on/Roll-off ships
LSV	Landing Ship, Vehicle
MFO-Sinai	Multinational Force and Observers Mission in the Sinai
MLRS	Multiple Launch Rocket System
MOS	Military Occupational Specialty
MRC	Major Regional Conflict
MTOE	Modification Table of Organization and Equipment
MTW	Major Theater War
NCO	Noncommissioned Officer
NEO	Non-Combatant Evacuation Operation
ODCSOPS	Office of the Deputy Chief of Staff for Operations and Plans
O&M	Operations and Maintenance
OPCON	Operational Control
OPTEMPO	Operating Tempo
OSD	Office of the Secretary of Defense
PA&E	Program Analysis and Evaluation
PCS	Permanent Change of Station
PERSTEMPO	Personnel Tempo
Prepo	Prepositioning
PSRC	Presidential Selected Reserve Call-up
PSYOP	Psychological Operations
QDR	Quadrennial Defense Review

RC	Reserve Component(s)
R&R	Rest and Recuperation
RSOI	Reception, Staging, Onward Movement, and Integration
SF	Special Forces
SFOR	Stabilization Force
SHORAD	Short-Range Air Defense
SKILLTEMPO	Time spent on "out of station operational deployments," reported by MOS and skill level
SIDPERS	Standard Installation/Division Personnel System
SOF	Special Operations Forces
SRC	Standard Requirements Code
SROC	Senior Readiness Oversight Council
SSC	Smaller-Scale Contingency operations
TAA-05	Total Army Analysis 2005
TAOR	Tactical Area of Operational Responsibility
TDA	Table of Distribution and Allowances
TDY/TCS	Temporary Tour of Duty/Temporary Change of Station
TOE	Table of Organization and Equipment
TTAD	Temporary Tour of Active Duty
USSOCOM	U.S. Special Operations Command
WMD	Weapons of Mass Destruction



## Appendix O

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